

GOVERNMENT OF INDIA

DEPARTMENT OF ARCHAEOLOGY

CENTRAL ARCHÆOLOGICAL
LIBRARY

CALL No.

938.005/J.H.S.

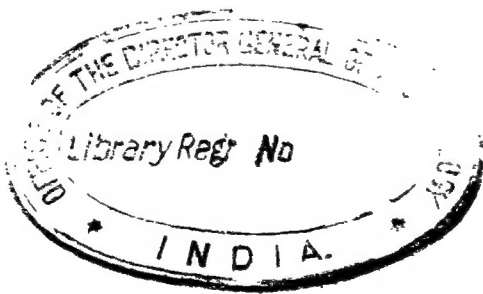
ACC. No.

25981

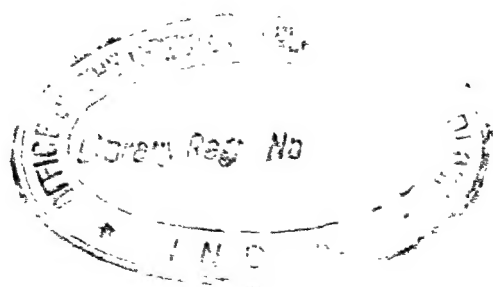
D.G.A. 79.

GIPN—S4—2D. G. Arch. N. D./57.—25-9-58—1,00,000.

~~A538~~



THE JOURNAL
OF
HELLENIC STUDIES



THE SOCIETY FOR THE PROMOTION OF HELLENIC STUDIES

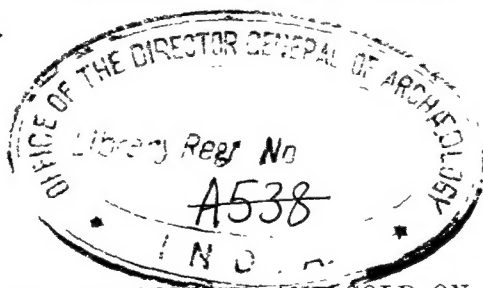
THE JOURNAL

OF

HELLENIC STUDIES

938.005
J. H. S.

VOLUME XXXV. (1915)



PUBLISHED BY THE COUNCIL AND SOLD ON THEIR BEHALF

BY

MACMILLAN AND CO., LIMITED, ST. MARTIN'S STREET
LONDON, W.C.

MDCCCXV

The Rights of Translation and Reproduction are Reserved

CENTRAL ARCHAEOLOGICAL
LIBRARY, NEW DELHI.

Acc. No. 25981.....
Date. 22.2.57.....
Call No. 938: 505 / J.H.S.

PRINTED IN GREAT BRITAIN BY
RICHARD CLAY AND SONS, LIMITED,
BRUNSWICK STREET, STAMFORD STREET, S.E.,
AND BUNGAY, SUFFOLK.

CONTENTS

	PAGE
Rules of the Society	xiii
List of Officers and Members	xix
Proceedings of the Society, 1914-1915	xl v
Financial Statement	li
Additions to the Library	lvi
Accessions to the Catalogue of Slides	lxii
Notice to Contributors... ..	lxix
ALLEN (T. W.) The Date of Hesiod	85
ARKWRIGHT (W.) Notes on the Lycian Alphabet	100
ASHBURNER (W.) A Byzantine Treatise on Taxation.—I.	76
CASPARI (M. O. B.) The Ionian Confederacy	173
CHILDE (V. GORDON) On the Date and Origin of Minyan Ware	196
FOAT (F. W. G.) Anthropometry of Greek Statues (Plates VII.—IX.)	225
GARDNER (P.) A Silver Dish from the Tyne	66
HOPPIN (J. C.) The Bazzichelli Psykter of Euthymides (Plates V., VI.)	189
LEAF, W. Rhesos of Thrace	1
.. .. On a History of Greek Commerce	161
LETHABY (W. R.) The Nereid Monument Re-examined... ..	208
MINNS (ELLIS H.) Parchments of the Parthian Period from Avroman in Kurdistan (Plates I.—III.)	22
RADFORD (EVELYN) Euphronios and his Colleagues (Plate IV.)... ..	107

	PAGE
SOUTHGATE (T. LEA) ... Ancient Flutes from Egypt	12
TOD (M. N.) The Progress of Greek Epigraphy, 1914-15	270
Notices of Books	140, 271
Index of Subjects	287
Greek Index... ..	290
List of Books Noticed	291

LIST OF PLATES

- I. Parchment I. from Avroman.
- II. Parchment II. from Avroman.
- III. Parchment III. from Avroman.
- IV. Kylix signed by Euphronios. Louvre.
- V., VI. Psykter signed by Euthymides. Turin.
- VII. Scheme of Geometric Man.
- VIII. Measurements of Statues. Archaic to Fifth Century.
- IX. Measurements of Statues and Living Figures.

LIST OF ILLUSTRATIONS IN THE TEXT

Ancient Flutes from Egypt.

	PAGE
Fragments of Flutes from Meroe	19

Parchments of the Parthian Period from Avroman in Kurdistan.

Sketch Map.	Diagram of Parchment II....	22
-------------	-----------------------------	-----	-----	-----	-----	-----	-----	----

A Silver Dish from the Tyne.

Silver Dish from Corbridge	67
--------------------------------------	----

Euphronios and his Colleagues.

[illegible]

The Bazzichelli Psykter of Euthymides.

[illegible]

On the Date and Origin of Minyan Ware.

	PAGE
Fig. 1. Minyan Pottery from Hagia Marina	197
„ 2. Urfinis Ware „ „ „	198
„ 3. Vases from Mycenae	202
„ 4. Jugs from Pre-Mycenean Tombs in Euboea	205
„ 5. Cups of Trojan Shape from Euboea	206

The Nereid Monument Re-examined.

Fig. 1. Plan of the Narrow Frieze	212
„ 2. Rearrangement of the Second Frieze... ..	215
„ 3. Plan of the Story of the Cella Frieze	217

Anthropometry of Greek Statues.

Fig. 1. Mercury. Gian Bologna	227
„ 2. Symmetrical Balance of Parts	227
„ 3. Dürer's Canon	228
„ 4. Geometric Diagrams	231
„ 5. Diagram	235
„ 6. System of Planes	239
„ 7. Diagram	240
„ 9. „	241
„ 10. „	243
„ 11. Comparison of Statues by a few Cardinal Points	245
„ 12. Diagram	247
„ 13. „	247
„ 14. „	248

xi

PAGE

Fig. 15.	Diagram	... ..	248
,, 16.	Proportions of Head (Front view)	... ..	249
,, 17.	Comparison of Canons (Heads)	... ..	250
,, 18.	Metrological Relief at Oxford	... ..	255
,, 19.	Diagram	... ..	255

' RULES

OF THE

Society for the Promotion of Hellenic Studies.

I. THE objects of this Society shall be as follows:—

I. To advance the study of Greek language, literature, and art, and to illustrate the history of the Greek race in the ancient, Byzantine, and Neo-Hellenic periods, by the publication of memoirs and unedited documents or monuments in a Journal to be issued periodically.

II. To collect drawings, facsimiles, transcripts, plans, and photographs of Greek inscriptions, MSS., works of art, ancient sites and remains, and with this view to invite travellers to communicate to the Society notes or sketches of archæological and topographical interest.

III. To organise means by which members of the Society may have increased facilities for visiting ancient sites and pursuing archæological researches in countries which, at any time, have been the sites of Hellenic civilization.

2. The Society shall consist of a President, Vice-Presidents, a Council, a Treasurer, one or more Secretaries, 40 Hon. Members, and Ordinary Members. All officers of the Society shall be chosen from among its Members, and shall be *ex officio* members of the Council.

3. The President shall preside at all General, Ordinary, or Special Meetings of the Society, and of the Council or of any Committee at which he is present. In case of the absence of the President, one of the Vice-Presidents shall preside in his stead, and in the absence of the Vice-Presidents the Treasurer. In the absence of the Treasurer the Council or Committee shall appoint one of their Members to preside.

4. The funds and other property of the Society shall be administered and applied by the Council in such manner as they shall consider most conducive to the objects of the Society: in the Council shall also be vested the control of all publications issued by the Society, and the general management of all its affairs and concerns. The number of the Council shall not exceed fifty.

5. The Treasurer shall receive, on account of the Society, all subscriptions, donations, or other moneys accruing to the funds thereof, and shall make all payments ordered by the Council. All cheques shall be signed by the Treasurer and countersigned by the Secretary.

6. In the absence of the Treasurer the Council may direct that cheques may be signed by two members of Council and countersigned by the Secretary.

7. The Council shall meet as often as they may deem necessary for the despatch of business.

8. Due notice of every such Meeting shall be sent to each Member of the Council, by a summons signed by the Secretary.

9. Three Members of the Council, provided not more than one of the three present be a permanent officer of the Society, shall be a quorum.

10. All questions before the Council shall be determined by a majority of votes. The Chairman to have a casting vote.

11. The Council shall prepare an Annual Report, to be submitted to the Annual Meeting of the Society.

12. The Secretary shall give notice in writing to each Member of the Council of the ordinary days of meeting of the Council, and shall have authority to summon a Special and Extraordinary Meeting of the Council on a requisition signed by at least four Members of the Council.

13. Two Auditors, not being Members of the Council, shall be elected by the Society in each year.

14. A General Meeting of the Society shall be held in London in June of each year, when the Reports of the Council and of the Auditors shall be read, the Council, Officers, and Auditors for the ensuing year elected, and any other business recommended by the Council discussed and determined. Meetings of the Society for the reading of papers may be held at such times as the Council may fix, due notice being given to Members.

15. The President, Vice-Presidents, Treasurer, Secretaries, and Council shall be elected by the Members of the Society at the Annual Meeting.

16. The President shall be elected by the Members of the Society at the Annual Meeting for a period of five years, and shall not be immediately eligible for re-election.

17. The Vice-Presidents shall be elected by the Members of the Society at the Annual Meeting for a period of one year, after which they shall be eligible for re-election.

18. One-third of the Council shall retire every year, but the Member so retiring shall be eligible for re-election at the Annual Meeting.

19. The Treasurer and Secretaries shall hold their offices during the pleasure of the Council.

20. The elections of the Officers, Council, and Auditors, at the Annual Meeting, shall be by a majority of the votes of those present. The Chairman of the Meeting shall have a casting vote. The mode in which the vote shall be taken shall be determined by the President and Council.

21. Every Member of the Society shall be summoned to the Annual Meeting by notice issued at least one month before it is held.

22. All motions made at the Annual Meeting shall be in writing and shall be signed by the mover and seconder. No motion shall be submitted, unless notice of it has been given to the Secretary at least three weeks before the Annual Meeting.

23. Upon any vacancy in the Presidency occurring between the Annual Elections, one of the Vice-Presidents shall be elected by the Council to officiate as President until the next Annual Meeting.

24. All vacancies among the other Officers of the Society occurring between the same dates shall in like manner be provisionally filled up by the Council until the next Annual Meeting.

25. The names of all candidates wishing to become Members of the Society shall be submitted to a Meeting of the Council, and at their next Meeting the Council shall proceed to the election of candidates so proposed: no such election to be valid unless the candidate receives the votes of the majority of those present.

26. The Annual Subscription of Members shall be one guinea, payable and due on the 1st of January each year; this annual subscription may be compounded for by a single payment of £15 15s., entitling compounders to be Members of the Society for life, without further payment. All Members elected on or after January 1, 1905, shall pay on election an entrance fee of two guineas.

27. The payment of the Annual Subscription, or of the Life Composition, entitles each Member to receive a copy of the ordinary publications of the Society.

28. When any Member of the Society shall be six months in arrear of his Annual Subscription, the Secretary or Treasurer shall remind him of the arrears due, and in case of non-payment thereof within six months after date of such notice, such defaulting Member shall cease to be a Member of the Society, unless the Council make an order to the contrary.

29. Members intending to leave the Society must send a formal notice of resignation to the Secretary on or before January 1; otherwise they will be held liable for the subscription for the current year.

30. If at any time there may appear cause for the expulsion of a Member of the Society, a Special Meeting of the Council shall be held to consider the case, and if at such Meeting at least two-thirds of the Members present shall concur in a resolution for the expulsion of such Member of the Society, the President shall submit the same for confirmation at a General Meeting of the Society specially summoned for this purpose, and if the decision of the Council be confirmed by a majority at the General Meeting, notice shall be given to that effect to the Member in question, who shall thereupon cease to be a Member of the Society.

31. The Council shall have power to nominate 40 British or Foreign Honorary Members. The number of British Honorary Members shall not exceed ten.

32. The Council may, at their discretion, elect for a period not exceeding five years Student-Associates, who shall be admitted to certain privileges of the Society.

33. The names of Candidates wishing to become Student-Associates shall be submitted to the Council in the manner prescribed for the Election of Members. Every Candidate shall also satisfy the Council by means of a certificate from his teacher, who must be a person occupying a recognised position in an educational body and be a Member of the Society, that he is a *bonâ fide* Student in subjects germane to the purposes of the Society.

34. The Annual Subscription of a Student-Associate shall be one guinea, payable and due on the 1st of January in each year. In case of non-payment the procedure prescribed for the case of a defaulting Ordinary Member shall be followed.

35. Student-Associates shall receive the Society's ordinary publications, and shall be entitled to attend the General and Ordinary Meetings, and to read in the Library. They shall not be entitled to borrow books from the Library, or to make use of the Loan Collection of Lantern Slides, or to vote at the Society's Meetings.

36. A Student-Associate may at any time pay the Member's entrance fee of two guineas, and shall forthwith become an Ordinary Member.

37. Ladies shall be eligible as Ordinary Members or Student-Associates of the Society, and when elected shall be entitled to the same privileges as other Ordinary Members or Student-Associates.

38. No change shall be made in the Rules of the Society unless at least a fortnight before the Annual Meeting specific notice be given to every Member of the Society of the changes proposed.

REGULATIONS FOR THE USE OF THE LIBRARY

AT 19 BLOOMSBURY SQUARE, W.C.

I. THAT the Hellenic Library be administered by the Library Committee, which shall be composed of not less than four members, two of whom shall form a quorum.

II. That the custody and arrangement of the Library be in the hands of the Hon. Librarian and Librarian, subject to the control of the Committee, and in accordance with Regulations drawn up by the said Committee and approved by the Council.

III. That all books, periodicals, plans, photographs, &c., be received by the Hon. Librarian, Librarian or Secretary and reported to the Council at their next meeting.

IV. That every book or periodical sent to the Society be at once stamped with the Society's name.

V. That all the Society's books be entered in a Catalogue to be kept by the Librarian, and that in this Catalogue such books, &c., as are not to be lent out be specified.

VI. That, except on Christmas Day, Good Friday, and on Bank Holidays, the Library be accessible to Members on all week days from 10.30 A.M. to 5.30 P.M. (Saturdays, 10 A.M. to 1 P.M.), when either the Librarian, or in his absence some responsible person, shall be in attendance. Until further notice, however, the Library shall be closed for the vacation for August and the first week of September.

VII. That the Society's books (with exceptions hereinafter to be specified) be lent to Members under the following conditions:—

- (1) That the number of volumes lent at any one time to each Member shall not exceed three; but Members belonging both to this Society and to the Roman Society may borrow *six* volumes at one time.
- (2) That the time during which such book or books may be kept shall not exceed one month.
- (3) That no books, except under special circumstances, be sent beyond the limits of the United Kingdom.

VIII. That the manner in which books are lent shall be as follows:—

- (1) That all requests for the loan of books be addressed to the Librarian.
- (2) That the Librarian shall record all such requests, and lend out the books in the order of application.
- (3) That in each case the name of the book and of the borrower be inscribed, with the date, in a special register to be kept by the Librarian.
- (4) Should a book not be returned within the period specified, the Librarian may reclaim it.

(5) All expenses of carriage to and fro shall be borne by the borrower.

(6) All books are due for return to the Library before the summer vacation.

IX. That no book falling under the following categories be lent out under any circumstances :—

(1) Unbound books.

(2) Detached plates, plans, photographs, and the like.

(3) Books considered too valuable for transmission.

(4) New books within one month of their coming into the Library.

X. That new books may be borrowed for one week only, if they have been more than one month and less than three months in the Library.

XI. That in the case of a book being kept beyond the stated time the borrower be liable to a fine of one shilling for each week after application has been made by the Librarian for its return, and if a book is lost the borrower be bound to replace it.

XII. That the following be the Rules defining the position and privileges of Subscribing Libraries :—

a. Libraries of Public and Educational Institutions desiring to subscribe to the *Journal* are entitled to receive the *Journal* for an annual subscription of One Guinea, without Entrance Fee, payable in January of each year, provided that official application for the privilege is made by the Librarian to the Secretary of the Society.

b. Subscribing Libraries, or the Librarians, are permitted to *purchase* photographs, lantern slides, etc., on the same conditions as Members.

c. Subscribing Libraries and the Librarians are not permitted to *hire* lantern slides.

d. A Librarian, if he so desires, may receive notices of meetings and may attend meetings, but is not entitled to vote on questions of private business.

e. A Librarian is permitted to read in the Society's Library.

f. A Librarian is not permitted to borrow books, either for his own use, or for the use of a reader in the Library to which he is attached.

— — — — —
The Library Committee.

*PROF. R. S. CONWAY.

*MR. G. D. HARDINGE-TYLER.

*PROF. F. HAVERFIELD.

MR. G. F. HILL.

*MR. T. RICE HOLMES.

MISS C. A. HUTTON.

MR. A. H. SMITH (*Hon. Librarian*);

MR. J. ff. BAKER-PENOYRE (*Librarian*).

Applications for books and letters relating to the Photographic Collections, and Lantern Slides, should be addressed to the Librarian, at 19 Bloomsbury Square, W.C.

* Representatives of the Roman Society.

THE SOCIETY FOR THE PROMOTION OF HELLENIC STUDIES.

OFFICERS AND COUNCIL FOR 1914—1915

President.

MR. WALTER LEAF, Litt.D., D.Litt

Vice-Presidents.

SIR SIDNEY COLVIN, D.Litt.

SIR ARTHUR EVANS, F.R.S., D.Litt., LL.D.

MR. L. R. FARNELL, D.Litt.

SIR J. G. FRAZER, LL.D., D.C.L.

LIEUT. ERNEST GARDNER.

PROF. PERCY GARDNER, Litt.D.

MR. G. F. HILL.

MR. D. G. HOGARTH.

PROF. HENRY JACKSON, O.M.

MR. H. STUART JONES.

SIR FREDERIC KENYON, K.C.B., F.B.A., D.Litt.

PROF. GILBERT MURRAY.

PROF. SIR W. M. RAMSAY, D.C.L., LL.D.
Litt. D., D.D.

PROF. WILLIAM RIDGWAY.

SIR JOHN SANDYS, Litt.D.

REV. PROF. A. H. SAYCE, Litt.D., D.Litt.

MR. A. HAMILTON SMITH.

SIR CECIL HARCOURT-SMITH, LL.D.

SIR CHARLES WALDSTEIN, Litt.D., Ph.D.
L.H.D.

Council.

MR. W. C. F. ANDERSON

MR. J. D. BEAZLEY.

MR. H. I. BELL.

MR. E. R. BEVAN.

MR. W. H. BUCKLER.

PROF. RONALD BURROWS.

MR. M. O. B. CASPARI.

LIEUT. F. M. CORNFORD.

MR. A. M. DANIEL.

MR. R. M. DAWKINS.

MR. GUY DICKINS.

MR. J. P. DROOP.

MR. C. C. EDGAR.

MR. TALFOURD ELY, D.Litt.

LADY EVANS

CAPTAIN E. J. FORSDYKE.

MR. THEODORE FYFE.

MR. E. NORMAN GARDINER.

MR. H. R. HALL.

MISS JANE E. HARRISON, LL.D., D.Litt.

MISS C. A. HUTTON

MR. E. H. MINNS.

MR. ERNEST MYERS.

MRS. S. ARTHUR STRONG, LL.D., Litt.D.

PROF. PERCY N. URE.

MR. A. J. B. WACE.

MR. H. B. WALTERS.

PROF. W. C. FLAMSTEAD WALTERS.

MR. A. E. ZIMMERN.

Hon. Secretary.

MR. GEORGE A. MACMILLAN, D.Litt., ST. MARTIN'S STREET, W.C.

Hon. Treasurer.

MR. DOUGLAS W. FRESHFIELD.

Assistant Treasurer.

MR. GEORGE GARNETT, ST. MARTIN'S STREET, W.C.

Hon. Librarian.

MR. A. HAMILTON SMITH.

Secretary, Librarian and Keeper of Photographic Collections.

MR. J. ff. BAKER-PENYF, 10, BLOOMSBURY SQUARE W.C.

Assistant Librarian.

MR. F. WISE, 19, BLOOMSBURY SQUARE. W.C.

Acting Editorial Committee.

CAPTAIN E. J. FORSDYKE. | LIEUT. ERNEST GARDNER. | MR. G. F. HILL

Consultative Editorial Committee.

SIR SIDNEY COLVIN | PROFESSOR PERCY GARDNER
PROFESSOR HENRY JACKSON, PROFESSOR GILBERT MURRAY, SIR FREDERIC KENYON
and MR. A. J. B. WACE (ex officio as Director of the British School at Athens).

Auditors for 1914-1915.

MR. C. F. CLAY.

|

CAPTAIN W. E. F. MACMILLAN

Bankers.

MESSRS. COUTTS & CO., 15, LOMBARD STREET.

HONORARY MEMBERS.

HIS MAJESTY THE KING OF THE HELLENES, à *M. le Secrétaire du Roi des Hellènes, Athens.*

Dr. W. Amelung, *Villino Antonia, Via Andrea Cesalpino 1, Rome.*

Sir Alfred Biliotti, K.C.B.,

Prof. Maxime Collignon, *La Sorbonne, Paris.*

Prof. D. Comparetti, *Istituto di Studii Superiori, Florence.*

Prof. Hermann Diels, *Nürnbergerstrasse, 65th Berlin, IV. 50.*

Prof. Wilhelm Dr. Dörpfeld, Ph.D., D.C.L., *Berlin-Friedenau, Niedstrasse, 22nd.*

Monsieur L'Abbé Duchesne, *Ecole Française, Rome.*

Monsieur P. Foucart.

*His Excellency J. Gennadius, D.C.L. Minister Plenipotentiary for Greece. *14. de Vere Gardens, Kensington.*

Prof. B. L. Gildersleeve, *Johns Hopkins University, Baltimore, U.S.A.*

Prof. Federico Halbherr, *Via Arenula, 21, Rome.*

H. E. Halil Bey, *Musées Impériaux Ottomans, Constantinople.*

Monsieur Joseph Hazzidaki, *Keeper of the National Museum, Candia, Crete.*

Prof. W. Helbig, *Villa Lante, Rome.*

Monsieur Th. Homolle, *Bibliothèque Nationale, Paris.*

Dr. F. Imhoof-Blumer, *Winterthur, Switzerland.*

Monsieur P. Kavvadias, *Athens.*

Dr. K. F. Kinch, 20, *St. Annes Plads, Copenhagen.*

Prof. Georg Loeschcke, *The University, Bonn.*

Prof. Emmanuel Loewy, *Via del Progresso, 23, Rome.*

Prof. Eduard Meyer, *Gross Lichterfelde, Mommsen-Strasse, Berlin, IV.*

Signor Paolo Orsi, *Director of the Archaeological Museum, Syracuse, Sicily.*

M. Georges Perrot, 25, *Quai Conti, Paris.*

Prof. E. Petersen, 13, *Friedrichsruhe Strasse, Halleusee, Berlin.*

Monsieur E. Pottier.

Monsieur Salomon Reinach, 4, *Rue de Traktir, Paris, XVIe.*

Prof. Carl Robert, *The University, Halle.*

M. Valerios Stais, *National Museum, Athens.*

Prof. F. Studniczka, *Leibnizstrasse 11, Leipzig.*

M. Ch. Tsountas, *National Museum, Athens.*

Prof. T. Wiegand, 30, *Peter Lennestrasse, Berlin-Dahlem.*

Prof. Ulrich v. Wilamowitz-Möllendorff, *The University, Berlin.*

Dr. Adolf Wilhelm, *Archaeol. Epigraph. Seminar, K. K. Universität, Vienna.*

Prof. John Williams White, *Cambridge, Mass., U.S.A.*

Prof. Paul Wolters, *Teng-Strasse, 20 1 Rechts, Munich, Bavaria.*

LIST OF MEMBERS.

* Original Members. † Life Members. ‡ Life Members, *Honoris Causa.*
The other Members have been elected by the Council since the Inaugural Meeting.

Abbot, Edwin, *Jesus College, Cambridge.*

†Abbot, Edwin H., 1, *Follen Street, Cambridge, Mass., U.S.A.*

Abercrombie, C. M., *Three Thorns Cottage, Moor Lane, Wilmslow, Cheshire.*

Abernethy, Miss A. S., *Bishops Hall West, St. Andrews, Fife.*

- Abrahams, Miss, 84, *Portsmouth Road, Maida Vale, W.*
 Acutt, Miss Alice, 138, *Troye Street, Pretoria, Transvaal, South Africa.*
 Adams, Miss Mary G., *Heathfield, Broadstone, Dorset.*
 †Adcock, F. E., M.A., *King's College, Cambridge.*
 Alexander, John B., 5, *Upper Bedford Place, Russell Square, W.C.*
 Alexandroff, J. A., *Sedgley Mount, Prestwich, Lancashire.*
 Alington, Rev. C. A. *School House, Shrewsbury.*
 Allbutt, Professor Sir T. Clifford, K.C.B., M.D., F.R.S., *Chaucer Road, Cambridge.*
 Allcroft, A. Hadrian, *Owlswick, Iford, near Lewes, Sussex.*
 Allen, J. B.
 Allen, T. W., *Queen's College, Oxford.*
 Alleyne, Miss Stella M., 16, *Cecil Court, Hollywood Road, S.W.*
 Alton, Ernest Henry, *Trinity College, Dublin.*
 Amherst, Hon. Florence M. T., *Foulden Hall, Stoke Ferry, Norfolk.*
 Amherst of Hackney, Baroness, 23, *Queen's Gate Gardens, S.W.*
 Anderson, James, J., *Odos Valaoritou, Athens, Greece.*
 †Anderson, J. G. C., *Christ Church, Oxford.*
 Anderson, R. H., *Kindar, 95, Alexandra Road, St. John's Wood, N.W.*
 Anderson, Prof. W. C. F. (Council), *Hermit's Hill, Burghfield, Mortimer, R.S.O.*
 Anderson, Yarborough, *The Belvedere, 57, Esplanade, Scarborough.*
 Anderton, Basil, *Public Library, Newcastle-on-Tyne.*
 Andrews, Prof. Newton Lloyd, *Colgate University, Hamilton, N.Y., U.S.A.*
 Angus, C. F., *Trinity Hall, Cambridge.*
 Appleton, R. B., *Lyndewode House, Lyndewode Road, Cambridge.*
 †Arkwright, W., *Great Gravels, Newbury.*
 Ashburner, W., 6, *Piazza San Lorenzo, Florence.*
 †Asquith, Raymond, 49, *Bedford Square, W.C.*
 Awdry, Miss F., *The Porch House, Lacock, near Chippenham, Wilts.*
 Bagge, Miss L., *Stradsett Hall, Downham Market, Norfolk.*
 Bailey, Cyril, *Balliol College, Oxford.*
 Bailey, J. C., 34, *Queen's Gate Gardens, S.W.*
 Baker, H. T., M.P., 42, *Queen Anne's Gate, Westminster, S.W.*
 Baker-Penoyre, Miss, *Teme House, Cheltenham.*
 Baker-Penoyre, J. ff. (Secretary & Librarian), 8, *King's Bench Walk, Inner Temple, E.C.*
 *Balfour, Right Hon. A. J., M.P., 4, *Carlton Gardens, S.W.*
 *Balfour, Right Hon. G. W., *Fishers' Hill, Woking, Surrey.*
 Ball, Sidney, *St. John's College, Oxford.*
 Barber, E. A., B.A., *Exeter College, Oxford.*
 Barge, Mrs. M., *Weircroft, Mill Lane, Henley-on-Thames.*
 Baring, Thos., *Sunninghill Park, Ascot.*
 †Barlow, Miss Annie E. F., *Greenthorne, Edgworth, Bolton.*
 Barlow, Lady, 10, *Wimpole Street, W.*
 Barnsley, Sidney H., *Pinbury, near Cirencester.*
 Barran, Sir J. N., Bart., *Sawley Hall, Ripon, Yorkshire.*
 Bates, Oric, *c/o Brown Shipley & Co., 123, Pall Mall, S.W.*
 Bather, Rev. Arthur George, *Sunnyside, Winchester.*
 Battle, Professor William James, *Austin, Texas.*
 Beare, Prof. John I., 9, *Trinity College, Dublin.*
 †Beaumont, Somerset, *Shere, near Guildford.*
 Beazley, J. D. (Council) *Christ Church Oxford.*
 Bell, H. I. (Council), *British Museum, W.C.*
 †Bell, Harold Wilmerding, 1737, *Cambridge Street, Cambridge Mass. U.S.A.*
 Bell, Miss Gertrude, 95, *Sloane Street, S.W.*

- +Benecke, P. V. M., *Magdalen College, Oxford*.
 Bennett, S. A., *Warreleigh, Budleigh Salterton*.
 Bent, Mrs. Theodore, 13, *Great Cumberland Place, W*.
 Beresford, George Charles, 20, *Yeoman's Row, S.W*.
 Beiger-Levrault, Théodore, 22, *Rue de Malzéville, Nancy, France*.
 †Bernays, A. E., 3, *Priory Road, Kew, Surrey*.
 Berry, James, 21, *Wimpole Street, W*.
 Bevan, E. R. (Council), *Sun House, 6, Chelsea Embankment, S.W*.
 Bienkowski, Prof. P. von, *Basztowa Strasse, 5, Krakau*.
 Billson, Charles J., *The Priory, Martyr Worth, near Winchester*.
 †Bissing, Dr. von, *Leopoldstrasse, 54, Munchen*.
 Blackett, J. P. N., 22, *South Street, Durham*.
 Bolling, George M., *Johns Hopkins University, Baltimore, Maryland, U.S.A.*
 Bosanquet, Prof. R. Carr, *Institute of Archaeology, 40, Bedford St. Liverpool*.
 Bowlby, Rev. Henry, *Lancing College, Shoreham-by-Sea, Sussex*.
 Boyd, Rev. Henry, D.D., *Principal of Hertford College, Oxford*.
 Boyle, Lady Constance, 63, *Queen's Gate, S.W*.
 Boys, Rev. H. A., *North Cadbury Rectory, Bath*.
 Bramley, Rev. H. R., *Nettleham Field, Lincoln*.
 Bramwell, Miss, 73, *Chester Square, S.W*.
 Brandt, D. R., 15, *Lennox Gardens, S.W*.
 Brice-Smith, R., *Cathedral School, Llandaff*.
 Brightman, Rev. F. E., *Magdalen College, Oxford*.
 Brooke, Rev. A. E., *King's College, Cambridge*.
 Brooke-Taylor, B., *The Hall, Bakewell, Derbyshire*.
 Brooks, E. W., 28, *Great Ormond Street, W.C*.
 Brooks, G. D. Forsythe, *Bronwydd, Pentyrh, nr. Cardiff*.
 Brooksbank, Mrs., *Leigh Place, Godstone*.
 Brown, Adam, *Netherby, Galashiels*.
 Brown, A. C. B., *Aston Vicarage, Stone, Staffordshire*.
 Brown, Prof. G. Baldwin, *The University, Edinburgh*.
 †Brown, James, *Netherby, Galashiels, N.B.*
 Brown, John Rankine, *Pembroke College, Oxford*.
 Browne, Mrs. Gore, *Brooklands, Weybridge*.
 Browne, Rev. Henry, *St. Ignatius, 35, Lower Leeson Street, Dublin*.
 Bruce, Hon. W. Napier, 14, *Cranley Gardens, S.W*.
 Brudenell-Bruce, Lord Frederick, 11, *Gloucester Gate, Regent's Park, N.W*.
 Bryans, Clement, *Arundel House, Hayling Island*.
 *Bryce, Viscount, O.M., D.C.L., Litt.D., *Hindleap, Forest Row, Sussex*.
 Buckler, W. H. (Council), *American Embassy, 18, Belgrave Square, S.W*.
 Buckler, Mrs. W. H., *Wellbank, Taplow*.
 Buckler, Miss L. R., *Wellbank, Taplow*.
 Bull, Rev. Herbert, *Wellington House, Westgate-on-Sea*.
 Burdon, Rev. Rowland John, *St. Peter's Vicarage, Chichester*.
 Buren, Mrs. Van, *Casa Gianicolo, Via Calandrelli, Rome*.
 †Burnaby, R. B., *High Street, Uppingham*.
 Burnet, Prof. J., 19, *Queen's Terrace, St. Andrews, N.B.*
 Burroughs, Rev. E. A., *Hertford College, Oxford*.
 Burrows, Principal Ronald (Council), *King's College, Strand, W.C*.
 Burton-Brown, Mrs., *Priors Field, Godalming*.
 Burv, Prof. J. B., LL.D. Litt.D., D.Litt., *King's College, Cambridge*.
 Butler, Prof. H. C., *Princeton University, Princeton, New Jersey, U.S.A.*
 Butler, Prof. H. E., 14, *Norham Gardens, Oxford*.
 *Butler, The Very Rev. H. M., D.D., D.C.L., *Master of Trinity College, Cambridge*

- Butler, Leonard, *St. John's College, Oxford*.
 Buxton, Mrs. A. F., *Fairhill, Tonbridge*.
 Callander, Prof. T., *Queen's University, Kingston, Ontario*.
 †Calvocoressi, L. M., *Junior Athenaeum Club, 116, Piccadilly, W.*
 Calvocoressi, Pandia, J., *Holme Hey, Croxteth Drive, Liverpool*.
 Cambridge, A. W. Pickard *Balliol College, Oxford*.
 Cameron, Captain J. S., *Low Wood, Bethersden, Ashford, Kent*.
 Campbell, Mrs. Lewis, 92, *Iverna Court, Kensington, W.*
 Capps, Prof. Edward, *Princeton University, New Jersey, U.S.A.*
 Carey, Miss, 13, *Eldon Road, Kensington*.
 *Carlisle, A. D., *Northacre, Godalming*.
 Carlisle, Miss Helen, *Upper Brook House, Uttoxeter*.
 †Carmichael of Skirling, Right Hon. Baron, *c/o Mr. L. A. Morrison, Murrayfield, Biggar*.
 Carpenter, Miss Agnes Miles, 54, *East 57th Street, New York, U.S.A.*
 Carpenter, Rev. J. Estlin, 11, *Marston Ferry Road, Oxford*.
 †Carr, Rev. A., *Addington Vicarage, Croydon*.
 †Carr, H. Wildon, D.Litt., *More's Garden, Cheyne Walk, S.W.*
 Carter, Frank, *Ashdene, Winchester*.
 Carter, Reginald, *Grammar School, Bedford*.
 †Carthew, Miss, 6, *Albert Place, Victoria Road, Kensington, W.*
 Case, Miss Janet, 5, *Windmill Hill, Hampstead, N.W.*
 Case, Prof. T., *President of Corpus Christi College, Oxford*.
 †Caspari, M. O. B. (Council) *University College, London*.
 Cassavetti, D. J., *Savile Club, 107, Piccadilly, W.*
 Casson, Stanley, 34, *Oakley Crescent, Chelsea*.
 Caton, Richard, M.D., *Holly Lee, Livingston Drive South, Liverpool*.
 Cattley, T. F., *Eton College, Windsor*.
 Chambers, Edmund Kirchever, *Board of Education, Whitehall, S.W.*
 Chance, Frederick, 30, *Lennox Gardens, S.W.*
 Chapman, Miss D., *University Hall, Fairfield, Liverpool*.
 Chapman, R. W., 5, *Polstead Road, Oxford*.
 Chase, George H., 11, *Kirkland Road, Cambridge, Mass., U.S.A.*
 Chavasse, A. S., *Lynch Rectory, near Midhurst, Sussex*.
 Cheetham, Right Hon. J. Frederick, *Eastwood, Staleybridge*.
 Cheetham, J. M. C., *Eyford Park, Bourton-on-the-Water, R.S.O., Gloucestershire*.
 Chitty, Rev. George J., *Eton College, Windsor*.
 Churchill, E. L., *Eton College, Windsor*.
 Churchill, Rev. W. H., *Stone House, Broadstairs*.
 Clark, Charles R. R., 12, *Victoria Grove, Kensington, W.*
 Clark, Rev. R. M., *Denstone College, Staffordshire*.
 †Clark-Maxwell, Rev. W. Gilchrist, *St. Leonard's Rectorv, Bridgnorth*.
 Clarke, Somers, F.S.A., 35, *St. James Place, S.W.*
 Clatworthy, Mrs. K., 12, *New Road, Reading*.
 †Clauson, A. C., *Hawkshead House, Hatfield, Herts*.
 Clay, C. F., 41, *Kensington Park Gardens, W.*
 Clements, E. (I.C.S.), *Dhulia, W. Kandesh, India*.
 Cohen, Donald H., 3, *New Square, Lincoln's Inn, W.C.*
 Cole, A. C., 64, *Portland Place, W.*
 Collingwood, Robin George, *Pembroke College, Oxford*.
 *Colvin, Sir Sidney, D.Litt. (V.P.), 35, *Palace Gardens Terrace, Kensington, W.*
 Compton, Miss A. C., *Minstead Pasonage, Lyndhurst*.
 Compton, Rev. W. C., *Sandhurst Rectory, Kent*.
 Connal, Prof. B. M., *The University, Leeds*.
 Conway, Prof. R. S., Litt.D., *Draethen, Didsbury, Manchester*.

- Conway, Sir W. M., *Allington Castle, Maidstone.*
 Conybeare, F. C., 64, *Banbury Road, Oxford.*
 Cook, Arthur Bernard, 19, *Cranmer Road, Cambridge.*
 Cook, T. A., *Brackenhurst, Tadworth, Surrey.*
 Cooke, Miss P. B. Mudie, 2, *Porchester Terrace, W.*
 Cooke, Rev. A. H., *Aldenham School, Elstree, Herts.*
 Cooke, Richard, *The Croft, Delling, Maidstone.*
 Cookson, C., *Magdalen College, Oxford.*
 Corbet, Eustace K., C.M.G., *Rock House, Boughton Monchelsea, near Maidstone.*
 Corley, Ferrand E., *Torfels, Nungambakkam, Madras.*
 Cornford, Lieut. F. M. (Council), *Trinity College, Cambridge.*
 Corning, Prof. H. K., *Bunderstrasse 17, Basel, Switzerland.*
 Coupland, Reginald, *Trinity College, Oxford.*
 Courtauld, Miss Catherine, *Bocken, Great Missenden.*
 Cowie, George S., c/o The London and Provincial Bank, 127, *Edgware Road, N.W.*
 Cowper, H. Swainson, *Loddenden Manor, Staplehurst, Kent.*
 Cozens-Hardy, The Hon. Mrs., 1, *Halkin Place, S.W.*
 Crace, J. F., *Eton College, Windsor.*
 †Crawford, G. R., 119, *Gloucester Terrace, Hyde Park, W.*
 Crewdson, Wilson, *Southside, St. Leonards-on-Sea.*
 Cromer, The Earl of, O. M., 36, *Wimpole Street, W.*
 Cronin, Rev. H. S., *Trinity Hall, Cambridge.*
 Crooke, W., *Langton House, Charlton Kings, Cheltenham.*
 †Crossman, C. Stafford, *Buckhurst Hill House, Buckhurst Hill, Essex.*
 Crowfoot, J. W., *Khartum, Soudan.*
 Cruikshank, Prof. A. H., *The University, Durham.*
 Cust, Lionel, *Datchet House, Datchet, Windsor.*
 Dakyns, G. D., *Grammar School, Morpeth.*
 D'Alton, Rev. Prof. J. F., *St. Patrick's College, Maynooth.*
 Daniel, A. M. (Council), 14, *Royal Crescent, Scarborough.*
 Daniel, Rev. C. H., *Provost of Worcester College, Oxford.*
 Danson, F. C., *Tower Buildings, Liverpool.*
 David, Rev. A. A., *The School, Rugby.*
 Davies, Miss F., 27, *Little Gaddesden, Berkhamsted.*
 †Davies, Prof. G. A., *The University, Glasgow.*
 Davies, L., *St. Edward's School, Oxford.*
 Davis, Miss Gladys M. N., D.Litt., M.A., *Clondurragh, Foxrock, co. Dublin.*
 Dawes, Rev. J. S., D.D., *Chapelville, Grove Road, Surbiton, S.W.*
 †Dawes, Miss E. A. S., M.A., D.Litt., *Weybridge, Surrey.*
 Dawkins, R. M. (Council), *Plas Dulas, Llandulas, N. Wales.*
 De Billy, Madame Edouard, 4, *Rue de Tallegand, Paris, VII^{me}.*
 De Burgh, W. G., *University College, Reading.*
 †De Gex, R. O., *Clifton College, Bristol.*
 Demetriadi, A. C., *Heathlands, Prestwich, Lancashire.*
 Demetriadi, G. C., *The Holme, Sedgley Park, Prestwich.*
 †De Rothschild, Anthony, 5, *Hamilton Place, W.*
 De Saumarez, Lord, *Shrubland Park, Coddanham, Suffolk.*
 Desborough, Right Hon. Baron, *Taplow Court, Taplow, Bucks.*
 †Deubner, Frau Dr., 7, *Ernst Wichert Strasse, Maraunenhof, Königsberg i Pr.*
 Dickins, F. V., C.B., *Seend Lodge, Seend, Wilts.*
 Dickins, Guy (Council), *Apsley Croft, Oxford.*
 Dickson, Miss Isabel A., 17, *Pelham Crescent, S.W.*
 Dill, Sir S., *Montpelier, Malone Road, Belfast.*
 Dobie, Marryat R., *British Museum, W.C.*

- Dobson, Miss, *Alva, Battledown, Cheltenham.*
 Dobson, Prof. J. F., 64, *Coldharbour Road, Redland, Bristol.*
 Doll, Christian, 5, *Southampton Street, Bloomsbury, W.C.*
 Douglas-Pennant, The Hon. Alice, *Penrhyn Castle, Bangor, N. Wales.*
 Downing, William H., *Medecroft, Olton, Birmingham.*
 Drage, Mrs. Gilbert, *The Rhodd, near Presteigne, Radnorshire.*
 Drake, H. L., *Pembroke College, Oxford.*
 †Droop, J. P. (Council), 11, *Cleveland Gardens, Hyde Park.*
 Dryhurst, A. R., 11, *Downshire Hill, Hampstead, N.W.*
 Duff, Prof. J. Wight, *Armstrong College, Newcastle-on-Tyne.*
 Duhn, Prof. von, *University, Heidelberg.*
 Duke, Roger, 9, *Pelham Crescent, S.W.*
 Dundas, R. H., *Phantassie, Prestonkirk, East Lothian.*
 Dunham, Miss A. G., 15, *Oxford Road, Worthing.*
 Dunlop, Miss M., 23, *St. James's Court, Buckingham Gate, S.W.*
 Dyde, W. Farrell, 4, *Upper Bedford Place, W.C.*
 Eagleston, Arthur J., *Home Office, Whitehall, S.W.*
 Earp, F. R., 15, *Sheen Park, Richmond, Surrey.*
 Eaton, Alexander C. (8th Battn. Bedfordshire Regt.), *Dettingen Barracks, Blackdown, Aldershot.*
 †Edgar, C. C. (Council), *Antiquities Dept. Mansourah, Egypt.*
 Edgar, C. S., *Kya Lami, Stellenbosch, South Africa.*
 Edmonds, J. Maxwell, *The Rookery, Thetford, Norfolk.*
 Edwards, G. M., *Sidney Sussex College, Cambridge.*
 †Egerton, Right Hon. Sir Edwin H., G.C.B., *The Cliff, Terrington, Yorks.*
 Egerton, Mrs. Hugh, 14, *St. Giles, Oxford.*
 †Elliot, Sir Francis E. H., K.C.M.G., H.B.M. Minister, *British Legation, Athens.*
 Elwell, Levi H., *Amherst College, Amherst, Mass., U.S.A.*
 Ely, Talfourd, D.Litt. (Council), 92, *Fitzjohns Avenue, Hampstead, N.W.*
 Esdaile, Mrs. Arundell, *Keynes, Austenway, Gerrards Cross, Bucks.*
 †Eumorfopoulos, George, *Clandon Regis, West Clandon, near Guildford, Surrey.*
 Eumorfopoulos, N., 24, *Pembroke Gardens, W.*
 Evans, Sir A. J., LL.D., D.Litt., F.R.S. (V.P.), *Foulbury, Berks, near Oxford.*
 Evans, F. Gwynne, *The Tower House, Woodchester, Stroud.*
 †Evans, Lady (Council), *c/o Union of London and Smith's Bank, Berkhamstead, Herts.*
 Evans, Miss Joan, *St. Hugh's College, Oxford.*
 Evans, Richardson, *The Keir, Wimbledon.*
 Evelyn-White, Lieut. H. G., *Rampton, near Cambridge.*
 Exeter, The Right Rev. the Lord Bishop of, D.D., *The Palace, Exeter.*
 Fairclough, Prof. H. R., *Stanford University, Cal., U.S.A.*
 Fanshawe, Reginald.
 Farie, Miss K. M., *Farnie Cottage, Grayshott, Hants.*
 Farnell, L. R., D.Litt. (V.P.) *Rector of Exeter College, Oxford.*
 Farrell, Lieut. Jerome, *Brookside, Newland Park, Hull, Yorks.*
 Farside, William, 39, *Sloane Gardens, S.W.*
 Fegan, Miss E. S., *The Ladies' College, Cheltenham.*
 Felkin, F. W., *Sherwood, Heronsgate, near Rickmansworth.*
 Ferguson, Prof. W. S., 17, *Chauncy Street, Cambridge, Mass., U.S.A.*
 Field, Rev. T., D.D., *St. Mary's Vicarage, Nottingham.*
 Finlay, The Right Hon. Sir Robert, K.C., 31, *Phillimore Gardens, Kensington, W.*
 †Finn, Rev. D. J., *Sillgasse 2, Innsbruck, Tirol.*
 Fisher, C. D., 6, *Phene Street, Chelsea, S.W.*
 Fisher, H. A. L., *The Grange, Eccleshall, Sheffield.*
 Fitzgerald, Augustine, *c/o Messrs. Hottinguer (Banquiers), 38, Rue de Provence, Paris.*

- Flather, J. H., *Lawden Cottage, Newton Road, Cambridge.*
 Fleeming-Jenkin, Mrs., 12, *Camden Hill Square, W.*
 Fleming, Rev. H., *Chaplain's Quarters, Royal Military Academy, Woolwich.*
 Fletcher, Banister F., 29, *New Bridge Street, Ludgate Circus, E.C.*
 Fletcher, F., *Charterhouse School, Godalming.*
 Fletcher, H. M., 2, *Gray's Inn Square, W.C.*
 Floyd, G. A., *Knowle Cottage, Tonbridge.*
 Foat, F. W. G., D.Litt., *City of London School, Victoria Embankment, E.C.*
 †Ford, P. J., 8, *Moray Place, Edinburgh.*
 Forsdyke, Captain E. J. (Council), *British Museum, W.C.*
 Forster, E. S., *The University, Sheffield.*
 Forsyth, J. D., 51, *Broadhurst Gardens, S. Hampstead, N.W.*
 Fotheringham, J. K., 6, *Blackhall Road, Oxford.*
 Fowler, Harold N., Ph.D., *Western Reserve University, Cleveland, Ohio, U.S.A.*
 Fowler, W. Warde, *Lincoln College, Oxford.*
 Frangopoulo, Geo. S., *The Limes, Upper Park Road, Broughton Park, Kersal, near Manchester.*
 Frazer, Prof., Sir J. G., LL.D., D.C.L. (V.P.), 1, *Brick Court, Middle Temple, E.C.*
 *Freshfield, Douglas W. (Hon. Treasurer), *Wych Cross Place, Forest Row, Sussex.*
 †Freshfield, Edwin, LL.D., 31, *Old Jewry, E.C.*
 Fry, Right Hon. Sir Edward, D.C.L., *Failand House, Failand, near Bristol.*
 Fry, F. J., *Cricket St. Thomas, Chard.*
 Fuller, B. Apthorp Gould, *Sherborn, Mass., U.S.A.*
 †Furley, J. S., *Chernocke House, Winchester.*
 Furneaux, L. R., *Rossall School, Fleetwood.*
 Fyfe, Theodore (Council), 1, *Montague Place, Russell Square, W.C.*
 Gardiner, E. Norman (Council), *Epsom College, Surrey.*
 Gardner, Miss Alice, *The Old Hall, Newnham College, Cambridge.*
 †Gardner, Lieut. Ernest A. (V.P.), *Tudworth, Surrey.*
 †*†Gardner, Prof. Percy, Litt.D. (V.P.), 12, *Canterbury Road, Oxford.*
 Gardner, Samuel, *Oakhurst, Harrow-on-the-Hill.*
 Gardner, W. Amory, *Groton, Massachusetts, U.S.A.*
 †Garstang, Prof. J., D.Sc., *Institute of Archaeology, Liverpool.*
 †Gaselee, S., 75, *Linden Gardens, Bayswater, W.*
 Gates, Miss S. M., 15, *York Road, Exeter.*
 Geikie, Sir Archibald, O.M., F.R.S., Sc D., D.C.L., *Shepherd's Down, Haslemere, Surrey.*
 †Genner, E., *Jesus College, Oxford.*
 †George, W. S., *Architect's Office, Raisina, Delhi, India.*
 †Gerrans, H. T., 20, *St. John's Street, Oxford.*
 Gibson, Mrs. Margaret D., D.D., LL.D., *Castle-brae, Chesterton Road, Cambridge.*
 Giles, Dr., P., *Master of Emmanuel College, Cambridge.*
 Gilkes, Rev. A. H.
 Gillespie, C. M., 6, *Hollin Lane, Far Headingley, Leeds.*
 Giveen, R. L., *Colet Court, Hammersmith Road, W.*
 Glover, Miss Helen, 9, *St. George's Square, S.W.*
 Godley, A. D., 27, *Norham Road, Oxford.*
 Goligher, W. A., *Trinity College, Dublin.*
 Gomme, A. W., *The University, Glasgow.*
 Goodhart, A. M., *Eton College, Windsor.*
 Goodhart, Sir J. F., Bart., M.D., LL.D., *Holtby, Cowden, Kent.*
 Gosford, The Countess of, 24, *Hyde Park Gardens, W.*
 Gow, A., 17a, *High Street, Eton.*
 Gow, Rev. James, Litt.D., 19, *Dean's Yard, Westminster, S.W.*

- Green. G. Buckland, 21, *Dean Terrace, Edinburgh*.
 Green. Mrs. J. R., 36, *Grosvenor Road, S.W.*
 Greene. C. H., *The School, Great Berkhamstead*.
 Greene, Herbert W., 4, *Stone Buildings, Lincolns Inn, W.C.*
 Greenwell. Rev. W., F.R.S., *Durham*.
 Greenwood, L. H. G., *Emmanuel College, Cambridge*.
 Griffith. J., *Grammar School, Dolgelly*.
 Griffith. Miss Mary E., *Grianan, Howth, Co. Dublin*.
 Gulbenkian, C. S., 38, *Hyde Park Gardens, W.*
 Gurney. Miss Amelia, 69, *Ennismore Gardens, S.W.*
 Hackforth, R., *Sidney Sussex College, Cambridge*.
 Hadow, W. H., Mus.Doc., *Principal of Armstrong College, Newcastle-on-Tyne*.
 Haigh. Mrs. E. A. R., *Thackeray Cottage, 11, King Street, Kensington Square, W.*
 Haines, C. R., *Mazagon, Godalming*.
 Hall, Harry Reginald (Council), *British Museum, W.C.*
 Hallam. G. H., *Ortygia, Harrow-on-the-Hill*.
 Halliday, Prof. W. R., B.Litt., *The University, Liverpool*.
 Halsbury, The Right Hon. the Earl of, 4, *Ennismore Gardens, S.W.*
 †Hammond, B. E., *Trinity College, Cambridge*.
 Hardie. Prof. W. Ross, *The University, Edinburgh*.
 Harding, G. V., *The Firs, Upper Basildon, Pangbourne*.
 †Harrison, Ernest, *Trinity College, Cambridge*.
 †Harrison. Miss J. E., LL.D., D.Litt. (Council), *Newnham College, Cambridge*.
 Harrower, Prof. John, *The University, Aberdeen*.
 Hart, Frank, 15, *Winchester Road, Hampstead*.
 Hart, Percival, *Grove Lodge, Highgate, N.*
 Hartog, David Henry, *Balliol College, Oxford*.
 Hasluck, F. W., *The Wilderness, Southgate, N.*
 Hauser, Dr. Friedrich, *Piazza Sforza-Cesarini 41, Rome, Italy*.
 Haussoullier, B., 8, *Rue Sainte-Cécile, Paris*.
 †Haverfield, Prof. F. J., LL.D., *Winshields, Headington Hill, Oxford*.
 Haversham, Right Hon. Lord, *South Hill Park, Bracknell*.
 Hawes, Charles H., *Dartmouth College, Hanover, New Hampshire, U.S.A.*
 Hawes. Miss E. P., 13, *Sussex Gardens, W.*
 Hayter. Angelo G. K., 39, *Netherhall Gardens, Hampstead, N.W.*
 Headlam. Rev. A. C., D.D., *Whorlton Hall, Barnard Castle, Durham*.
 Headlam, J. W., c/o Mrs. Headlam, 1, *St. Mary's Road, Wimbledon*.
 Heard. Rev. W. A., *Fettes College, Edinburgh*.
 Heath, Charles H., 224, *Hagley Road, Birmingham*.
 Heath, R. M., *Mortimer House, Clifton, Bristol*.
 †Heathcote, W. E., *Chingford Lodge, N. Walk Terrace, York*.
 Heberden, Rev. C. B., *Principal of Brasenose College, Oxford*.
 Helbert, Lionel H., *West Downs, Winchester*.
 Henderson, A. E., *Westwood Park House, Westwood Park, Forest Hill, S.E.*
 Henn, The Hon. Mrs., *Reedley Lodge, Burnley*.
 Henry, Prof. R. M., *Queen's University, Belfast*.
 Henty, Mrs. Douglas, *Westgate, Chichester*.
 Hett, W. S., *School House, The College, Brighton*.
 Heywood, Mrs. C. J., *Chaseley, Pendleton, Manchester*.
 Hicks, F. M., *Brackley Lodge, Weybridge*.
 Hill, George F. (V.P.), *British Museum, W.C.*
 Hill, Miss R. M., 26, *St. George's Square, S.W.*
 Hillard, Rev. A. E., *St. Paul's School, West Kensington, W.*
 Hiller von Gaertringen, Prof. Friedrich Freiherr, *Ebereschen Allee 11, Westend, Berlin*.

- Hirschberg, Dr. Julius, 26, *Schiffbauerdamm, Berlin, Germany.*
Hirst, Miss Gertrude, 5, *High Street, Saffron Walden.*
Hodge, A. H., 50, *Bedford Gardens, Campden Hill, Kensington, W.*
Hodges, Harold W., *Royal Naval College, Dartmouth.*
Hodgson, F. C., *Abbotsford Villa, Twickenham.*
Hogarth, David G. (V.P.), *Ashmolean Museum, Oxford.*
Hogarth, Miss M. I., *The Red House, Westleton, Suffolk.*
†Holborn, J. B. S., 1, *Mayfield Terrace, Edinburgh.*
Holding, Miss Grace E., 21, *Penn Road Villas, Camden Road, N.W.*
Hopkins, R. V. Nind, 100, *Hampstead Way, N.W.*
Hopkinson, Rev. J. H., 18, *Haverholt Road, Colne, Lancs.*
Hoppin, J. C., *Courtlands, Pomfret Centre, Conn., U.S.A.*
†Hort, Sir Arthur F., Bart., *Newlands, Harrow-on-the-Hill.*
Hose, H. F., *Dulwich College, Dulwich, S.E.*
Hotson, J. E. B., I.C.S., c/o Messrs. Grindlay & Co., P.O. Box 98, *Bombay.*
House, H. H., *The College, Malvern.*
How, W. W., *Merton College, Oxford.*
Howard de Walden, The Right Hon. Lord, *Seaford House, Belgrave Square, S.W.*
Howorth, Sir Henry H., K.C.I.E., F.R.S., 45, *Lexham Gardens, S.W.*
Huddart, Mrs., *Cudwells, Haywards Heath*
Hugel, Baron Friedrich von, 13, *Vicarage Gate, Kensington, W.*
Hughes, Reginald, D.C.L., 46, *Compayne Gardens, South Hampstead, N.W.*
Hunt, A. S., D.Litt., *Queen's College, Oxford.*
Hunter, L. W., *New College, Oxford.*
Hutchinson, Sir J. T., *Lorton Hall, Cumberland.*
Hutchinson, Miss Doris, *St. Peter's Hill, Grantham.*
Hutton, Miss C. A. (Council), 49, *Drayton Gardens, S.W.*
†Hyde, James H., 18, *Rue Adolphe-Yvon, Paris.*
Image, Prof. Selwyn, 20, *Fitzroy Street, W.*
Jackson, Prof. Henry, O.M., Litt.D. (V.P.), *Trinity College, Cambridge.*
†James, A. G., 58, *Rutland Gate, S.W.*
*James, The Rev. H. A., D.D., *President of St. John's College, Oxford.*
James, H. R., *Presidency College, Calcutta, India.*
James, Miss L., *Wyss Wood, Kenley, Surrey.*
James, Lionel, *School House, Monmouth.*
James, Montague Rhodes, Litt.D., *Provost of King's College, Cambridge.*
Jameson, Monsieur R., 4, *Avenue Velasquez, Paris.*
Janvier, Mrs. Thomas A., 222, *West 59th Street, New York, U.S.A.*
†Jex-Blake, Miss, *Girton College, Cambridge.*
Johnson, Rev. Gifford H., *Feltham, 97, Park Lane, Croydon.*
Johnson, Mrs. K. F. S., *Feltham, 97, Park Lane, Croydon.*
Johnson, Miss Lorna A., *Woodleigh, Altrincham.*
Jonas, Maurice, 4, *Wildwood Road, Golders Green, N.W.*
Jones, Henry L., *Willaston School, Nantwich.*
†Jones, H. Stuart (V.P.), *Glan-y-Mor, Saundersfoot, Pembrokeshire.*
†Jones, Ronald P., 208, *Coleherne Court, South Kensington.*
Joseph, H. W. B., *New College, Oxford.*
Kahnweiler, Miss Bettina, 6, *Norham Gardens, Oxford.*
Karo, George, 1, *Rue Phidias, Athens, Greece.*
Keith, Prof. A. Berriedale, D.Litt., D.C.L., 122, *Polwarth Terrace, Edinburgh.*
Kennedy, J., 51, *Palace Gardens Terrace, Campden Hill, W.*
Kensington, Miss Frances, 145, *Gloucester Terrace, Hyde Park, W.*
Kenyon, Sir Frederic, K.C.B., D.Litt. (V.P.), *British Museum, W.C.*
Ker, Prof. W. P., 95, *Gower Street, W.C.*

- Keser, Dr. J., *Grande Boissiere*, 62, *Route de Chêne*, *Genève*.
 King, J. E., *Clifton College*, *Bristol*.
 †King, Mrs. Wilson, 19, *Highfield Road*, *Edgbaston*, *Birmingham*.
 Kipling, Mrs., *Mickleton*, *Queens Drive*, *Mossley Hill*, *Liverpool*.
 Knight, Miss C. M., 9, *Nassington Road*, *Hampstead*, *N.W.*
 Laistner, M. L. W., *Queen's University*, *Belfast*.
 Lamb, Miss D., 5, *Cambridge Terrace*, *Kew*.
 †Lamb, W. R. M., 5, *Cambridge Terrace*, *Kew*.
 Lane, Mrs. Charles T., *Dangstein*, *Petersfield*.
 †Lansdowne, The Most Hon. the Marquess of, K.G., G.C.S.I., G.C.I.E., G.C.M.G.,
Bowood, *Calne*, *Wilts*.
 Lantour, Miss de, *Swifts*, *Buxted*, *Sussex*.
 La Touche, Sir James Digges, K.C.S.I., 53, *Raglan Road*, *Dublin*.
 Laurie, George E., *Royal Academical Institute*, *Belfast*.
 Lawson, The Hon. Mrs., 78, *South Audley Street*, *S.W.*
 Lawson, J. C., *Pembroke College*, *Cambridge*.
 Leaf, Herbert, *The Green*, *Marlborough*.
 †‡Leaf, Walter, Litt.D., D.Litt. (President), 6, *Sussex Place*, *Regent's Park*, *N.W.*
 Leeds, Her Grace, the Duchess of, 11, *Grosvenor Crescent*, *S.W.*
 Leeper, Alexander, *Warden of Trinity College*, *Melbourne*.
 Leeper, A. W. A., *British Museum*, *W.C.*
 Legge, F., 6, *Gray's Inn Square*, *W.C.*
 Lehmann-Haupt, Prof. C. F.
 Leigh, W. Austen, *Hartfield*, *Roehampton*, *S.W.*
 Lemon, Miss E., 35, *Lauriston Place*, *Edinburgh*.
 Lethaby, Prof. W. R., 111, *Inverness Terrace*, *W.*
 Letts, Malcolm, 8, *Bartlett's Buildings*, *Holborn Circus*, *E.C.*
 Lewis, Harry R., 11, *Upper Phillimore Gardens*, *W.*
 Lewis, G. R., c/o *Advocate of J. A. Greer*, *Rhodes Buildings*, *St. George's Street*, *Cape Town*, *Cape Colony*.
 Lewis, L. W. P., 3, *Esholt Avenue*, *Guiselley*, near *Leeds*.
 †Lewis, Mrs. Agnes S., Phil. D., D.D., LL.D., *Castle-brae*, *Chesterton Road*, *Cambridge*.
 Lincoln, Right Rev. the Lord Bishop of, *Old Palace*, *Lincoln*.
 Lincoln, Very Rev. Dean of, *The Deanery*, *Lincoln*.
 Lindley, Miss Julia, 74, *Shooter's Hill Road*, *Blackheath*, *S.E.*
 Lindsell, Miss Alice, *Newnham College*, *Cambridge*.
 Livingstone, R. W., *Corpus Christi College*, *Oxford*.
 Llewellyn, Raymond.
 Lloyd, Miss A. M., *Caythorpe Hall*, *Grantham*.
 †Lock, Rev. W., D.D., *Warden of Keble College*, *Oxford*.
 †Loeb, James, *Konradstrasse 14*, *Munich*, *Germany*.
 †Longman, Miss Mary, 61, *Lansdowne Road*, *Holland Park*, *W.*
 Lorimer, Miss H. L., *Somerville College*, *Oxford*.
 Lowe, Miss D., *Hinton St. George*, *Crewkerne*, *Somerset*.
 Lowry, C., *The School House*, *Tonbridge*.
 Lumsden, Miss, *Warren Cottage*, *Cranleigh*, *Surrey*.
 Lunn, Sir Henry S., M.D., *Oldfield House*, *Harrow-on-the-Hill*.
 Lunn, W. Holdsworth, *Allan Water Hotel*, *Bridge of Allan*, *N.B.*
 Lyttelton, Hon. and Rev. E., *Eton College*, *Windsor*.
 *Macan, R. W., *Master of University College*, *Oxford*.
 McCann, Rev. Justin, O.S.B., *Ampleforth Abbey*, *Oswaldkirk*, *York*.
 McCutcheon, Miss K. H., *Lady Margaret Hall*, *Oxford*.
 Macdonald, George, LL.D., 17, *Learmonth Gardens*, *Edinburgh*.
 Macdonald, Miss Louisa, *Women's College*, *Sydney University*, *Sydney*, *N.S.W.*

- McDonell, H. C., *Twyford School, Twyford, near Winchester.*
 Macdonell, P. J., *Office of Public Prosecutor, Livingstone, N.W. Rhodesia.*
 McDougall, Miss Eleanor, *Westfield College, Hampstead, N.W.*
 McDowall, Rev. C. R. L., *King's School, Canterbury.*
 Macduff, Mrs. E. A., *Sesame Club, 27, Dover Street, W.*
 MacEwen, Rev. Prof. Alex. Robertson, 5, *Doune Terrace, Edinburgh.*
 Macgregor, J. M., *Bedford College, Regents Park, N.W.*
 McIntyre, Rev. P. S., 41, *North Parade, Grantham.*
 MacIver, D. Randall, 131, *East 66th Street, New York, U.S.A.*
 Mackenzie, Duncan.
 MacLehose, James J., 61, *St. Vincent Street, Glasgow.*
 Macmillan, Mrs. Alexander, 32, *Grosvenor Road, S.W.*
 ‡*Macmillan, George A., D.Litt. (Hon. Sec.), *St. Martin's Street, W.C.*
 Macmillan, Mrs. George A., 27, *Queen's Gate Gardens, S.W.*
 Macmillan, Maurice, 52, *Cadogan Place, S.W.*
 †Macmillan, Captain W. E. F., 27, *Queen's Gate Gardens, S.W.*
 †Macnaghten, Hugh, *Eton College, Windsor.*
 †Magrath, Rev. J. R., *Provost of Queen's College, Oxford.*
 *Mahaffy, Rev. J. P., D.D., D.C.L., C.V.O., *Provost of Trinity College, Dublin.*
 Mair, Prof. A. W., *The University, Edinburgh.*
 †Malim, F. B., *The School, Haileybury.*
 Marchant, E. C., *Lincoln College, Oxford.*
 †Marindin, G. E., *Hammondswood, Frensham, Farnham.*
 †Marquand, Prof. Allan, *Princeton College, New Jersey, U.S.A.*
 Marriage, Miss E. M., *Longfold House, near Farnham, Surrey.*
 Marsh, E.
 Marshall, Miss, *Oakhill, Stoke-on-Trent.*
 Marshall, Frederick H., 144, *Abbey Road, N.W.*
 Marshall, Sir J. H., C.I.E., Litt D., *Director General of Archaeology, Simla, India.*
 Marshall, Prof. J. W., *University College of Wales, Aberystwyth.*
 Marshall, R., 31, *The Waldrons, Croydon.*
 Martin, Charles B., *Box 42, Oberlin, Ohio, U.S.A.*
 †Martin, Sir R. B., Bart., 10, *Hill Street, Mayfair, W.*
 Martindale, Rev. C., 114, *Mount Street, W.*
 †Martyn, Edward, *Tillyra Castle, Ardahan, County Galway.*
 Massy, Lieut.-Colonel P. H. H., *United Service Club, Pall Mall, S.W.*
 Matheson, P. E., 1, *Savile Road, Oxford.*
 Maugham, A. W., *The Wick, Brighton.*
 Mavrogordato, J., 5, *Linnell Close, Hampstead Garden Suburb, N.W.*
 Mavrogordato, J. J., 6, *Palmeira Court, Hove, Sussex.*
 Mavrogordato, T. M., 62, *Westbourne Terrace, Hyde Park, W.*
 Mayor, H. B., *Clifton College, Bristol.*
 Mayor, Rev. Prof. Joseph B., *Queensgate House, Kingston Hill, Surrey.*
 Mayor, R. J. G., *Board of Education, Whitehall, S.W.*
 Measures, A. E., *King Edward VI. School, Birmingham.*
 Medley, R. P., *Felsted School, Essex.*
 Megaw, M. G., *The Welkin, Eastbourne.*
 Meiklejohn, Lady, 20, *Eaton Terrace, S.W.*
 Merk, F. H., *Christ's Hospital, West Horsham.*
 Merry, Rev. W. W., *Rector of Lincoln College, Oxford.*
 Metaxas, Spiro, 98, *Westbourne Terrace, W.*
 †Miers, Principal Sir H. A., F.R.S., *Birch Heys, Cromwell Range, Fallowfield, Manchester.*
 Michel, Prof. Ch., 42, *Avenue Blondin, Liège, Belgium.*

- Millar, J. H., 10, *Abercromby Place, Edinburgh*.
 Miller, William, 36, *Via Palestro, Rome, Italy*.
 Milliet, P., 95, *Boulevard St. Michel, Paris*.
 Millington, Miss M. V., 47, *Peak Hill, Sydenham, S.E.*
 Milne, J. Grafton, *Bankside, Goldhill, Farnham, Surrey*.
 Milner, Viscount, G.C.B., *Brook's Club, St. James Street, S.W.*
 Minet, Miss Julia, 18, *Sussex Square, Hyde Park, W.*
 Minns, Ellis H. (Council), *Pembroke College, Cambridge*.
 Mitchell, J. Malcolm, *East London College, Mile End Road, E.*
 Mitchell, Mrs. C. W., *Jesmond Towers, Newcastle-on-Tyne*.
 Mond, Rt. Hon. Sir Alfred, Bart., M.P., 35, *Lowndes Square, S.W.*
 Mond, Mrs. E., 22, *Hyde Park Square, W.*
 †Mond, Mrs. Frida, *The Poplars, 20, Avenue Road, Regents Park, N.W.*
 †Mond, Robert, *Combe Bank, near Sevenoaks*.
 Monfries, C. B. S., *Larchfield School, Helensburgh, near Glasgow*.
 Monfries, J. Drummond C., 313, *Upper Richmond Road, S.W.*
 Morrison, Walter, 77, *Cromwell Road, S.W.*
 Moss, The Rev. Prebendary H. W., *Highfield Park, near Oxford*.
 Mozley, H. W., *The White House, Haslemere*.
 Muirhead, L., *Haseley Court, Wallingford*.
 †Munro, J. A. R., *Lincoln College, Oxford*.
 †Murphy, Rev. J. M., *Milltown Park, Dublin*.
 Murray, Prof. G. G. A. (V.P.), 82, *Woodstock Road, Oxford*.
 Musson, Miss Caroline, *Mount Pleasant, Magdalen Hill, Winchester*.
 †*Myers, Ernest (Council), *Brackenside, Chislehurst, Kent*.
 †Myres, Prof. J. Linton, 101, *Banbury Road, Oxford*.
 †Nairn, Rev. J. Arbuthnot, *Merchant Taylors School, E.C.*
 Needham, Miss Helen R., *Enville House, Green Walk, Bowdon, Cheshire*.
 Negroponte, J. A., 78, *George Street, Manchester*.
 Newman, W. L., Litt.D., D.Litt., *Pittville Lawn, Cheltenham*.
 Newton, The Lord, 6, *Belgrave Square, S.W.*
 Newton, Miss Charlotte M., 18, *Priory Road, Bedford Park, W.*
 Noack, Prof. Ferdinand, *Archaeolog. Institut, Wilhelmstrasse, No. 9, Tubingen*.
 Nomico, C. G., c/o Messrs. Ralli Bros., *Peter Street, Manchester*.
 Norman-Roth, Mrs., 4, *College Court, Hammersmith, W.*
 Norwood, Cyril, *The Grammar School, Bristol*.
 Norwood, Prof. G., 65, *Ninian Road, Roath Park, Cardiff*.
 Oakesmith, John, D.Litt., *Montrose, Staines Road, Bedford, Middlesex*.
 Odgers, Rev. J. Edwin, D.D., 9, *Marston Ferry Road, Oxford*.
 Oehler, Miss Elisabeth, 51, *Marlborough Mansions, Cannon Hill, Hampstead, N.W.*
 Ogden, Mrs Percy, *Frogna End, Hampstead, N.W.*
 Oliphant, Prof. Samuel Grant, *Grove City College, Grove City, Pennsylvania, U.S.A.*
 Oppé, A. P., 18, *Cheyne Gardens, Chelsea, S.W.*
 Oppenheimer, H., 9, *Kensington Palace Gardens, W.*
 Ormerod, H. A., *The University, Liverpool*.
 Orpen, Rev. T. H., *Mark Ash, Abinger, Dorking*.
 Owen, A. S., *Keble College, Oxford*.
 Owen-Mackenzie, Lady, 6, *Chesham Street, S.W.*
 Page, T. E., *Woodcote, Godalming*.
 Pallas, Alexander, *Tutor, Aighurth Drive, Liverpool*.
 Parker, Miss M. E., *Princess Helena College, Ealing, W.*
 Parmiter, Rev. S. C., *West Bank, Uppingham*.
 †Parry, Rev. O. H., *All Hallows' Clergy House, East India Docks, E.*
 Parry, Rev. R. St. J., *Trinity College, Cambridge*.

- Partington, John B., 45, *Gloucester Terrace, W.*
 Paterson, Dr. W. B., 1, *Aighurth Hall Road, Aighurth, Liverpool.*
 †Paton, James Morton, 302, *Strathcona Hall, Charles River Road, Cambridge, Mass., U.S.A.*
 Paton, W. R., *Vathy, Samos.*
 Pears, Sir Edwin.
 Peckover of Wisbech, Baron, *Wisbech, Cambs.*
 †Peckover, The Hon. Alexandrina, *Bank House, Wisbech.*
 Pember, F. W., *Warden of All Souls' College, Oxford.*
 †Penrose, Miss Emily, *Somerville College, Oxford.*
 *†Percival, F. W., 1, *Chesham Street, S.W.*
 Perry, Prof. Edward Delavan, *Columbia University, New York City, U.S.A.*
 Pesel, Miss Laura, *Oak House, Bradford.*
 Petrocochino, D. P., 25, *Odos, Timoleonos, Athens.*
 Petrocokino, Ambrose, *Thames Cottage, Pangbourne.*
 Philips, Mrs. Herbert, *Sutton Oaks, Macclesfield.*
 Phillimore, Prof. J. S., *The University, Glasgow.*
 Phillips, J. G., *c/o Messrs. Arthur Hunt & Money, 24, The Haymarket, S.W.*
 Picard, George, 2 bis, *Rue Benouville, Paris.*
 Pickering, T. E., *The Schools, Shrewsbury.*
 Plater, Rev. Charles, S.J., *St. Mary's Hall, Stonyhurst, Blackburn.*
 †Platt, Prof. Arthur, 5, *Chester Terrace, Regent's Park, N.W.*
 †Podmore, G. C., *Charney Hall, Grange-over-Sands.*
 Pollock, The Right Hon. Sir Frederick, Bart., 21, *Hyde Park Place, W.*
 †Pope, Mrs. G. H., 60, *Banbury Road, Oxford.*
 †Postgate, Prof. J. P., Litt.D., 15, *Linnet Lane, Liverpool.*
 Potter, Alan, *Grey Gables, Boreham Wood, Herts.*
 Powell, John U., *St. John's College, Oxford.*
 Poynter, Sir Edward J., Bart., Litt.D., D.C.L., P.R.A., 70, *Addison Road, S.W.*
 Preedy, J. B. K., 31, *Southwood Avenue, Highgate, N.*
 Price, Miss Mabel, *The Judges' Lodgings, Oxford.*
 Prickard, A. O., *Shotover, Fleet R.S.O., Hants.*
 Pryce, F. N., *British Museum, W.C.*
 †Pryor, Francis R., *Woodfield, Hatfield, Herts.*
 Purser, Miss Olive, 28, *Kempsford Gardens, Earl's Court, S.W.*
 Pyddoke, Miss Mary, 21, *Grange Park, Ealing, W.*
 Quibell, Mrs. Annie A., *Gizeh Museum, Egypt.*
 †Rackham, H., *Christ's College, Cambridge.*
 Radcliffe, W. W., *Fonthill, East Grinstead, Sussex.*
 Radford, Miss, *Belgian Colony, The Grange, Littleport Road, Ely.*
 †Raleigh, Miss Katherine A., 8, *Park Road, Uxbridge.*
 *Ralli, Pandeli, 17, *Belgrave Square, S.W.*
 †Ralli, Mrs. Stephen A., *St. Catherine's Lodge, Hove, Sussex.*
 Ramsay, A. B., *Eton College, Windsor.*
 Ramsay, Prof. G. G., LL.D., Litt.D., 19, *Onslow Gardens, S.W.*
 †Ramsay, Prof. Sir W. M., D.C.L., Litt.D. (V.P.), 41, *Braid Avenue, Edinburgh.*
 Raven, H. M., M.R.C.S., *Barfield House, Broadstairs.*
 Rawlins, F. H., *Eton College, Windsor.*
 Reeves, Hon. William Pember, 43, *Cornwall Gardens, S.W.*
 Reichel, Sir Harry R., *Gartherwen, Bangor, North Wales.*
 Reid, Prof. J. S., Litt.D., *Caius College, Cambridge.*
 †Rendall, Rev. G. H., Litt.D., *Dedham House, Dedham, Colchester.*
 †Rendall, Montague, *The College, Winchester.*
 Rennie, W., *The University, Glasgow.*

- Richards, Rev. G. C., *Oriel College, Oxford*.
 Richards, F., *Kingswood School, Bath*.
 Richards, H. P., *Wadham College, Oxford*.
 Richardson, Miss A. W., *Westfield College, Hampstead, N.W.*
 Richmond, Prof. O. L., 25, *Cardiff Road, Ilandaff*.
 Richmond, Sir W. B., K.C.B., D.C.L., R.A., *Bevor Lodge, West End, Hammersmith, W.*
 Richter, Miss Gisela, Litt.D., *Metropolitan Museum of Art, New York, U.S.A.*
 Ridgeway, Prof. W. (V.P.), *Fen Ditton, Cambridge*.
 Ridley, Miss E. E. A., 24, *Bartholomew Road, N.W.*
 Ridley, Sir Edward, 48, *Lennox Gardens, S.W.*
 Rigg, Herbert A., *Wallhurst Manor, Cowfold, Horsham*.
 Riley, W. E., *County Hall, Spring Gardens, S.W.*
 Roberts, J. Slingsby, 3, *Powis Villas, Brighton*.
 Roberts, Principal T. F., *Sherborne House, Aberystwyth*.
 Roberts, Professor W. Rhys, LL.D., *The University, Leeds*.
 Robertson, D. S. (Council), *Trinity College, Cambridge*.
 Robinson, C. E., *Culvers Close, Winchester*.
 Robinson, Edward, *Metropolitan Museum of Art, New York, U.S.A.*
 Robinson, E. S. G., *British Museum, W.C.*
 Robinson, W. S., *Courtfield, West Hill, Putney Heath*.
 Rodd, H. E. Sir Rennell, G.C.M.G., *British Embassy, Rome*.
 Romanos, H. E. Athos, *Greek Legation, Paris*.
 Rose, H. J., 840, *Lorne Crescent, Montreal, Canada*.
 †Rosebery, The Right Hon. the Earl of, K.G., 38, *Berkeley Square, W.*
 Rotton, Sir J. F., *Lockwood, Frith Hill, Godalming, Surrey*.
 †Rouse, W. H. D., Litt.D., *Glebe Road, Cambridge*.
 Ruben, Paul, 34, *Alte Rabenstrasse, Hamburg, Germany*.
 †Ryle, The Right Rev. Bishop, C.V.O., *The Deanery, Westminster, S.W.*
 Sachs, Mrs. Gustave, 26, *Marlborough Hill, N.W.*
 St. Lawrence, T. J. E. Gaisford, *Howth Castle, Dublin*.
 Salterthwaite, Colonel, *Pasture House, Northallerton, Yorkshire*.
 Sanday, Rev. Prof. W., D.D., *Christ Church, Oxford*.
 Sanders, Miss A. F. E., *The High School, Camden Park, Tunbridge Wells*.
 Sanderson, F. W., *The School, Oundle, Northamptonshire*.
 Sands, P. C., *Pocklington School, East Yorks.*
 †Sandys, Sir John, Litt.D. (V.P.), *St. John's House, Grange Road, Cambridge*.
 †Sandys, Lady, *St. John's House, Grange Road, Cambridge*.
 Sawyer, Rev. H. A. P., *School House, St. Bees, Cumberland*.
 †*Sayce, Rev. Prof. A. H., LL.D. (V.P.), 8, *Chalmers Crescent, Edinburgh*.
 †Scaramanga, A. P.
 †Scarth, Miss E. M., *Turleigh Mill, Bradford-on-Avon*.
 Scheurleur, C. W. Lunsingh, *Vinkenpark 16, The Hague*.
 Schilizzi, Miss, 37, *Upper Brook Street, W.*
 Schrader, Prof. H., *Alleegasse 39, Wien IV.*
 Schuster, Ernest, 12, *Harrington Gardens, S.W.*
 Scouloudi, Stephanos, *Athens, Greece*.
 Scutt, C.A., *British School, Athens*.
 Seager, Richard B., *c/o Baring Bros. and Co., 8, Bishopsgate Street Within, E.C.*
 Seale, Rev. E. G., *Cork Grammar School, Cork*.
 Seebohm, Hugh, *Poynder's End, near Hitchin*.
 Seltman, E. J., *Kinghoe, Great Berkhamsted, Herts.*
 †Selwyn, Rev. E. C., D.D., *Undershaw, Hindhead, Surrey*.
 Selwyn, Rev. E. G., *Warden of Radley, Berks.*
 †Sharpe, Miss Catharine, *Stoneycroft, Elstree, Herts.*

- Shear, Mrs., 468, *Riverside Drive, New York, U.S.A.*
 Shearme, J. S., *Repton, Burton-on-Trent.*
 Sheepshanks, A. C., *Eton College, Windsor.*
 Sheppard, J. T., *King's College, Cambridge.*
 Shewan, Alexander, *Seehof, St. Andrews, Fife.*
 Shields, Mrs., *American Art Students' Club, 4, Rue de Chevreuse, Paris.*
 Shipley, A.E., F.R.S., *Master of Christ's College, Cambridge*
 Shipley, H. S., C.M.G., H.B.M. Consulate, *Tabriz, Persia.*
 Shoobridge, Leonard, *Propriété St. François, Gairaut, Nice.*
 Shove, Miss E., 30, *York Street Chambers, Bryanston Square, W.*
 Sidgwick, Arthur, *Corpus Christi College, Oxford.*
 Silcox, Miss, *St. Felix School, Southwold.*
 Sills, H. H., *Great Shelford, Cambridge.*
 †Sing, J. M., *The College, Winchester.*
 Six, J., *Heerengracht 511, Amsterdam.*
 *Skrine, Rev. J. H., *Vicarage, St. Peter's in the East, Oxford.*
 †Slater, Howard, M.D. *St. Budeaux, Devonport.*
 Sloane, Miss Eleanor, 13, *Welford Road, Leicester.*
 Sloman, H. N. P., *Sydney Grammar School, Sydney, N.S.W.*
 †‡Smith, A. Hamilton (V.P.), *British Museum, W.C.*
 Smith, A. P., *Loretto School, Musselburgh, N.B.*
 Smith, Sir Cecil Harcourt, LL.D. (V.P.), 62, *Rutland Gate, S.W.*
 Smith, Sir H. Babington, K.C.B., C.S.I., 121, *St. James Court, Buckingham Gate, S.W.*
 Smith, James, *The Knoll, Blundellsands, near Liverpool.*
 Smith, Nowell, *School House, Sherborne, Dorset.*
 Smith, R. Elsey, *Rosegarth, Walden Road, Horsell, Woking.*
 Smith, Sharwood E., *The School House, Newbury.*
 Smith, William H., 63, *Wall Street, New York.*
 Smith-Pearse, Rev. T. N. H., *Castle Street, Launceston, Cornwall.*
 Smyly, Prof. J. G., *Trinity College, Dublin.*
 †Snow, T. C., *St. John's College, Oxford.*
 †Somerset, Arthur, *Castle Goring, Worthing.*
 Sonnenschein, Prof. E. A., 30, *Calthorpe Road, Edgbaston, Birmingham.*
 Southwark, Right Rev. Lord Bishop of, *Bishop's House, Kennington Park, S.E.*
 SOWELS, F., *The Rookery, Thelford, Norfolk.*
 Spearing, H. G., 5, *Hornsey Lane Gardens, Highgate, N.*
 Spiers, R. Phené, 21, *Bernard Street, Russell Square, W.C.*
 Spooner, Rev. W. A., *Warden of New College, Oxford.*
 Stainton, J. A., 1, *Wyndham Place, Bryanston Square, W.*
 Starkie, Rt. Hon. W. J. M., Litt.D., *Office of National Education, Marlborough Street, Dublin.*
 †Stawell, Miss F. Melian, 33, *Ladbroke Square, Notting Hill Gate, W.*
 Steel, D., *Roycot, Stansted, Essex.*
 †Steel-Maitland, A. D., M.P., 72, *Cadogan Sq., S.W.*
 Steele, Dr., 35, *Viale Milton, Florence.*
 Steele-Hutton, Miss E. P., 20, *Sedgemere Avenue, East Finchley, N.*
 Stevenson, Miss E. F., 24, *Brandling Park, Newcastle-on-Tyne.*
 Stevenson, G. H., *University College, Oxford.*
 Stewart, Prof. J. A., *Christ Church, Oxford.*
 Stocks, J. L., *St. John's College, Oxford.*
 Stogdon, Rev. Edgar, *Aldenham Vicarage, Watford.*
 Stogdon, J., *Mount Pleasant, London Road, Harrow-on-the-Hill.*
 Stone, E. W., *Eton College, Windsor.*
 Stout, George F., *Craigard, St. Andrews.*

- Strachan-Davidson, J. L., *Master of Balliol College, Oxford.*
 Strangways, L. R., 6, *Grosvenor Gardens, Muswell Hill, N.*
 Streatfeild, Mrs., 22, *Park Street, W.*
 Strong, Mrs. S. Arthur, LL.D., Litt.D. (Council), *British School, Palazzo Odescalchi, Rome.*
 Struthers, Sir John, K.C.B., 23, *Sloane Gardens, S.W.*
 Swithinbank, Harold, c/o J. Holley, *Denham Court, Estate Office, Denham.*
 †Sykes, Lieut.-Col. Sir Percy, K.C.I.E., C.M.G., *Udaipur, via Bombay.*
 Symonds, Rev. H. H., *Rugby School, Rugby.*
 Tancock, Captain A. (31st Punjabis, Indian Army), *Parachinar, Kurram Valley, Via Kohat, N.W.F.P. India.*
 Tarbell, Prof. F. B., *University of Chicago, Chicago, Ill., U.S.A.*
 Tarn, W. W., *Mountgerald, Dingwall, N.B.*
 Tarrant, Miss D., *Bedford College, Regent's Park, N.W.*
 Tatton, R. G., 2, *Somer Place, W.*
 Taylor, Miss M. E. J., *Royal Holloway College, Egham.*
 Taylor, Mrs. L. E. Watson, 19, *The Boltons, S.W.*
 Temple, Rev. W., *St. James' Rectory, Piccadilly, W.*
 Thackeray, H. St. John, 9, *North Park, Gerrards Cross, Bucks.*
 Thiselton-Dyer, Sir William Turner, K.C.M.G., F.R.S., *The Ferns, Witcombe, Gloucester.*
 Thomas, W. H., *The Ness, Roman Road, Linthorpe, Middlesbrough.*
 Thomas-Stanford, Charles, *Preston Manor, Brighton.*
 †Thompson, Miss Anna Boynton, *Thayer Academy, South Braintree, Mass., U.S.A.*
 Thompson, F. E. 16, *Primrose Hill Road, N.W.*
 Thompson, Sir Herbert, Bart., 9, *Kensington Park Gardens, S.W.*
 Thompson, J., 40, *Harcourt Street, Dublin.*
 Thompson, Maurice, *Garthlands, Reigate.*
 Thomson, F. C., 5, *Northumberland Street, Edinburgh.*
 Tiddy, R. J. E., *University College, Oxford.*
 Tidswell, W. J., *Kingswood School, Bath.*
 Tillyard, H. J. W., *Fordfield, Cambridge.*
 †Tod, Lieut. Marcus N., *Oriel College, Oxford.*
 Toynbee, Arnold Joseph, *Balliol College, Oxford.*
 *†Tozer, Rev. H. F., 18, *Norham Gardens, Oxford.*
 Tudeer, Dr. Emil, *Helsingfors, Finland.*
 †Turnbull, Mrs. Peveril, *Sandy-Brook Hall, Ashbourne.*
 Turner, Prof. H. H., F.R.S., *University Observatory, Oxford.*
 Tyler, C. H., *Gresham Villas, Holt, Norfolk.*
 Tylor, Sir E. B., D.C.L., F.R.S., *Linden, Wellington, Somerset.*
 Underhill, G. E., *Magdalen College, Oxford.*
 Upcott, Rev. Dr., *Christ's Hospital, West Horsham.*
 Ure, Prof. Percy N. (Council), *University College, Reading.*
 †Vaughan, E. L., *Eton College, Windsor.*
 Vaughan, W. W., *Wellington College, Berks.*
 Verrall, Mrs. A. W., *Selwyn Gardens, Cambridge.*
 †Virtue-Tebbs, Miss H., 56, *Kensington Park Road, W.*
 †Viti de Marco, Marchesa di, *Palazzo Orsini, Monte Savello, Rome.*
 Vlasto, Michael P., 12, *Allées des Capucines, Marseilles.*
 Vysoký, Prof. Dr. Ignaz, *K.K. Böhmische Universität, Prag, Bohemia.*
 Wace, A. J. B. (Council), *British School, Athens, Greece.*
 †Wackernagel, Prof. Jacob, *The University, Göttingen, Germany.*
 Wadsworth, S. A., 34, *Fellows Road, Hampstead, N.W.*
 †Wagner, Henry, 13, *Half Moon Street, W.*
 †Waldstein, Sir Charles, Ph.D., Litt.D., L.H.D. (V.P.), *Newton Hall, near Cambridge.*
 Walford, L., *Borough of Holborn Council Offices, 197, High Holborn, W.C.*

- Walker, Miss D. L., *Regent Lodge, Headingley, Leeds.*
 Walker, Rev. E. M., *Queen's College, Oxford.*
 Walker, Rev. R. J., *Little Holland House, Kensington, W.*
 Walters, Henry Beauchamp (Council), *British Museum, W.C.*
 Walters, Prof. W. C. Flamstead (Council), *Limen, Milton Park, Gerrards Cross, Bucks.*
 Ward, Arnold S., M.P., 25, *Grosvenor Place, S.W.*
 *Ward, Sir A. W., Litt.D., *Master of Peterhouse, Cambridge.*
 Ward, W. Henry, 2, *Bedford Square, W.C.*
 Warner, Rev. Wm., 6, *Crick Road, Oxford.*
 †Warre, Rev. Edmond, D.D., D.C.L., C.B., *Provost of Eton College, Windsor.*
 Warren, E. P., *Lewes House, Lewes, Sussex.*
 Warren, Mrs. Fiske, 8, *Mount Vernon Place, Boston, U.S.A.*
 Warren, Sir Herbert, K.C.V.O., D.C.L., *President of Magdalen College, Oxford.*
 Waterfield, Rev. R., *The Principal's House, Cheltenham.*
 Waterhouse, Edwin, *Feldemore, near Dorking.*
 Weatherhead, Robert W., *H.M.S. Superb, Home Fleet, Portland.*
 Webb, C. C. J., *Magdalen College, Oxford.*
 Webb, P. G. L., 12, *Lancaster Gate Terrace, W.*
 †Weber, F. P., M.D., 13, *Harley Street, W.*
 Weber, Sir Hermann, M.D., 10, *Grosvenor Street, W.*
 Webster, Erwin Wentworth, *Wadham College, Oxford.*
 Wedd, N., *King's College, Cambridge.*
 Weech, W. N., *School House, Sedburgh, Yorkshire.*
 Weir, Robert Weir Schultz, 14, *Gray's Inn Square, W.C.*
 Weld-Blundell, Herbert, *Brook's Club, St. James Street, S.W.*
 †Welldon, The Right Rev. Bishop, *The Deanery, Manchester.*
 Wells, C. M., *Eton College, Windsor.*
 Wells, J., *Wadham College, Oxford.*
 Welsh, Miss S. M., *Siegfried Strasse 6 III, Munich.*
 Whatley, N., *Hertford College, Oxford.*
 Wheeler, Prof. James R., Ph.D., *Columbia College, New York City, U.S.A.*
 Whibley, Leonard, *Pembroke College, Cambridge.*
 White, Hon. Mrs. A. D., *Cornell University, Ithaca, U.S.A.*
 †Whitehead, R. R., *Woodstock, Ulster Co., N.Y., U.S.A.*
 Whitworth, A. W., *Eton College, Windsor.*
 Wilford, Miss D., 28, *Knighton Church Road, Leicester.*
 Wilkins, Rev. George, 36, *Trinity College, Dublin.*
 Wilkinson, Herbert, 10, *Orme Square, W.*
 Williams, Prof. T. Hudson, *University College, Bangor.*
 Willis, J. Armine, c/o R. C. B. Willis, Esq., 4, *Grange Park, Ealing, W.*
 Willis, Miss L. M., 76, *Addison Gardens, W.*
 Wilson, Major H. C. B., *Crofton Hall, Crofton, near Wakefield.*
 Wilson, Miss, *Laleham, Eastbourne.*
 Wilson, T. I. W., *Repton, Burton-on-Trent.*
 Wood, R. Stanford, 56, *St. John's Park, Upper Holloway, N.*
 Wood, Rev. W. S., *Ufford Rectory, Stamford.*
 Woodhouse, Prof. W. J., *The University, Sydney, N.S.W.*
 Woodward, A. M. (Council), *The University, Leeds.*
 Woodward, Prof. W. H., *Crooksbury Hurst, Farnham, Surrey.*
 Woolley, C. L., *Old Riffhams, Danbury, Essex.*
 Wright, F. A., LL.D., *Moss Hall Lodge, Nether Street, North Finchley, N.*
 †Wyndham, Rev. Francis M., *St. Mary of the Angels, Westmoreland Road, Bayswater, W.*
 Wyndham, Hon. Margaret, 12, *Great Stanhope Street, W.*
 Wynne-Finch, Miss Helen, *Chapel House, Crathorne, Yarm, Yorkshire.*

- †Wyse, W., *Halford, Shipston-on-Stour*.
 Yeames, A. H. S., *United University Club, Pall Mall East, S.W.*
 Yorke, V. W., *Pontifex House, Shoe Lane, E.C.*
 Young, George M., 99, *St. George's Square, S.W.*
 †Yule, Miss Amy F., *Tarradale House, Ross-shire, Scotland*.
 Zimmer, A. E. (Council), 14, *Great Russell Mansions, Great Russell Street, W.C.*
 †Zochonis, G. B., *Mountlanas, Enville Road, Bowdon, Cheshire*.
 †Zochonis, P. B., *Fairlawn, Winton Road, Bowdon, Cheshire*.

STUDENT ASSOCIATES

- Astley, Miss M., 9, *Wilton Street Grosvenor Place, S.W.*
 Bere, R. de, *Sutton, Surrey*.

LIST OF LIBRARIES SUBSCRIBING FOR THE JOURNAL OF HELLENIC STUDIES.

The privilege of obtaining the *Journal of Hellenic Studies* on the same terms as those enjoyed by members of the Society is extended to Libraries. Application should be made to the
SECRETARY, 19 Bloomsbury Square, W.C.

† Libraries claiming copies under the Copyright Act.

GREAT BRITAIN AND IRELAND.

- Aberdeen**, The University Library.
Aberystwyth, The University College of Wales.
Birmingham, The Central Free Library, *Ratcliffe Place, Birmingham* 'A. Capel Shaw, Esq.).
 „ The University of Birmingham.
Bradford, The Free Library and Art Museum, *Darley Street, Bradford*.
 „ The Girls' Grammar School (Miss Falding).
Bristol, The University Library, *Bristol*.
Clifton, The Library of Clifton College, *Clifton, Bristol*.
Cambridge, The Library of the Museum of Classical Archaeology.
 „ The Girton College Library.
 „ The Library of King's College.
 „ The Library of St. John's College.
 „ The Library of Trinity College.
 + „ The University Library.
Cardiff, The University College of South Wales, *Cardiff*.
Charterhouse, The Library of Charterhouse School, *Godalming*.
Dublin, The King's Inns Library.
 „ The National Library of Ireland.
 „ The National Museum of Ireland.
 „ The Royal Irish Academy.
 + „ The Library of Trinity College.
Durham, The University Library.
 + **Edinburgh**, The Advocates' Library.
 „ The Edinburgh College of Art, *Lauriston Place, Edinburgh*.
Egham, The Royal Holloway College, *Egham, Surrey*.
Eton, The College Library, Eton College, *Windsor*.
 „ The Boys' Library, Eton College, *Windsor*.
Galway, The University Library.
Glasgow, The University Library.
Harrow, The School Library, *Harrow, N.W.*
Hull, The Hull Public Libraries.
Leeds, The Leeds Library, *Commercial Street, Leeds*.
 „ The Public Library.
Liverpool, The Public Library.
London, The Society of Antiquaries, *Burlington House, W.*
 „ The Athenaeum Club, *Pall Mall, S.W.*
 + „ The British Museum, *W.C.*
 „ The Department of Greek and Roman Antiquities, *British Museum, W.C.*
 „ The Burlington Fine Arts Club, *Savile Row, W.*
 „ The Library of King's College, *Strand, W.C.*
 „ The London Library, *St. James's Square, S.W.*
 „ The Oxford and Cambridge Club, c/o Messrs. Harrison & Sons, 45, *Pall Mall, S.W.*
 „ The Reform Club, *Pall Mall, S.W.*
 „ The Royal Institution, *Albemarle Street, W.*
 „ The Sion College Library, *Victoria Embankment, E.C.*
 „ The Library of St. Paul's School, *West Kensington, W.*

- London**, The Library, *Westminster School, S.W.*
Manchester, The Library of the Grammar School.
 „ The John Rylands Library.
 „ Victoria University.
Mirfield, Library of the House of the Resurrection.
Newcastle-upon-Tyne, The Public Library, *New Bridge Street, Newcastle-upon-Tyne.*
Northampton School (E. Reynolds), *Northampton.*
Oxford, The Library of All Souls College.
 „ The Library of the Ashmolean Museum (Department of Classical Archæology).
 „ The Library of Balliol College.
 + „ The Bodleian Library.
 „ The Library of Christ Church.
 „ The Senior Library, Corpus Christi College.
 „ The Library of Exeter College.
 „ Meyrick Library, Jesus College.
 „ The Library of Keble College.
 „ The Library of Lincoln College.
 „ The Library of New College.
 „ The Library of Oriel College.
 „ The Library of Queen's College.
 „ The Library of St. John's College.
 „ The Library of Somerville College.
 „ The Library of Trinity College.
 „ The Union Society.
 „ The Library of Worcester College.
Plymouth, The Free Library, *Plymouth.*
Preston, The Public Library and Museum, *Preston.*
Reading, The Library of University College, *Reading.*
Repton School (L. A. Burd, *Repton, Burton-on-Trent.*
Sheffield, The University Library, *Sheffield.*
Shrewsbury, Library, *Mill Mead School.*
St. Andrews, The University Library, *St. Andrews, N.B.*
Uppingham, The Library of Uppingham School, *School House, Uppingham.*

COLONIAL.

- Adelaide**, The University Library, *Adelaide, S. Australia.*
Christchurch, The Library of Canterbury College, *Christchurch, N.Z.*
Melbourne, The Library of the University, *Melbourne.*
Montreal, The McGill University Library, *Montreal, Canada.*
Ontario, The University Library, *Queen's University, Kingston, Ontario.*
Sydney, The Public Library, *Sydney, New South Wales.*
 „ The University Library, *Sydney, New South Wales.*
Toronto, The University Library, *Toronto.*
Wellington, The General Assembly Library, *Wellington, N.Z.*

UNITED STATES OF AMERICA.

- Albany**, The New York State Library, *Albany, New York, U.S.A.*
Allegheny, The Carnegie Free Library, *Allegheny, Pa., U.S.A.*
Amherst, The Amherst College Library, *Amherst, Mass., U.S.A.*
Ann Arbor, The University of Michigan Library, *Ann Arbor, Michigan, U.S.A.*
Aurora, The Library of Wells College, *Aurora, New York.*
Baltimore, The Enoch Pratt Library, *Baltimore, Maryland, U.S.A.*
 „ The Library of Johns Hopkins University, *Baltimore, Maryland, U.S.A.*
 „ The Peabody Institute Library, *Baltimore, Maryland, U.S.A.*
Berkeley, The University of California Library, *Berkeley, California, U.S.A.*
Bloomington, Indiana University Library, *Bloomington, U.S.A.*

- Boston**, Athenaeum, *Boston, Massachusetts, U.S.A.*
 „ Museum of Fine Arts, *Boston, Massachusetts, U.S.A.*
 „ The Public Library, *Boston, Massachusetts, U.S.A.*
Boulder, The University of Colorado Library, *Boulder, Colorado, U.S.A.*
Brooklyn, The Brooklyn Institute of Arts and Sciences, *Brooklyn, New York, U.S.A.*
 „ The Public Library, *Brooklyn, New York, U.S.A.*
Brunswick, The Bowdoin College Library, *Brunswick, Maine, U.S.A.*
Burlington, University of Vermont Library, *Burlington, Vermont, U.S.A.*
California, Stanford University Library, *California, U.S.A.*
Cambridge, The Harvard University Library, *Cambridge, Massachusetts, U.S.A.*
Chapel Hill, University of North Carolina, *Chapel Hill, North Carolina, U.S.A.*
Chicago, The University of Chicago Press, *Chicago, Illinois, U.S.A.*
Cincinnati, The Public Library, *Cincinnati, Ohio, U.S.A.*
 „ The University of Cincinnati Library, *Cincinnati, Ohio, U.S.A.*
Cleveland, Adelbert College Library, *Cleveland, Ohio, U.S.A.*
Clinton, The Hamilton College Library, *Clinton, New York, U.S.A.*
Columbia, The University of Missouri Library, *Columbia, Missouri, U.S.A.*
Delaware, The Library of Ohio Wesleyan University, *Delaware, Ohio, U.S.A.*
Grand Rapids, The Public Library, *Grand Rapids, Michigan, U.S.A.*
Hanover, The Dartmouth College Library, *Hanover, New Hampshire, U.S.A.*
Hartford, The Case Memorial Library, *Hartford, Conn., U.S.A.*
 „ Trinity College Library, *Hartford, Conn., U.S.A.*
Iowa City, The University of Iowa Library, *Iowa City, Iowa, U.S.A.*
Ithaca, The Cornell University Library, *Ithaca, New York, U.S.A.*
Jersey City, The Free Public Library, *Jersey City, New Jersey, U.S.A.*
Lansing, The State Library, *Lansing, Michigan, U.S.A.*
Lawrence, The University of Kansas, *Lawrence, Kansas, U.S.A.*
Lowell, The City Library, *Lowell, Mass., U.S.A.*
Madison, University of Wisconsin Library, *Madison, U.S.A.*
Middletown, The Library of Wesleyan University, *Middletown, Conn., U.S.A.*
Minneapolis, The Library of Minnesota University, *Minneapolis, U.S.A.*
Mount Holyoke, The Mount Holyoke College Library, *South Hadley, Mass., U.S.A.*
Mount Vernon, Cornell College Library, *Mount Vernon, Iowa, U.S.A.*
New Haven, The Library of Yale University, *New Haven, Conn., U.S.A.*
New York, The Library of the College of the City of New York, *New York, U.S.A.*
 „ The Library of Columbia University, *New York, N.Y., U.S.A.*
 „ The Metropolitan Museum of Art, *New York, N.Y., U.S.A.*
 „ The Public Library, *New York, N.Y., U.S.A.*
Northampton, Smith College Library, *Northampton, Mass., U.S.A.*
Philadelphia, The Free Library, *Philadelphia, Pa., U.S.A.*
 „ The Library Company, *Philadelphia, Pa., U.S.A.*
 „ The Library of the University of Pennsylvania, *Philadelphia, Pa., U.S.A.*
 „ The Museum of the University, *Philadelphia, Pa., U.S.A.*
Pittsburg, The Carnegie Library, *Pittsburg, Pa., U.S.A.*
Poughkeepsie, The Vassar Library, *Poughkeepsie, New York, U.S.A.*
Providence, The Brown University Library, *Providence, Rhode Island, U.S.A.*
Sacramento, The California State Library, *Sacramento, California, U.S.A.*
Sioux, Morningside College Library, *Sioux, Iowa, U.S.A.*
St. Louis, The Mercantile Library Association, *St. Louis, Mo., U.S.A.*
 „ Washington University Library, *St. Louis, Mo., U.S.A.*
Swarthmore, Swarthmore College Library, *Swarthmore, Pa., U.S.A.*
Syracuse, The Syracuse University Library, *Syracuse, New York, U.S.A.*
Urbana, The University of Illinois Library, *Urbana, Illinois, U.S.A.*
Washington, The Library of Congress, *Washington, D.C., U.S.A.*
Wellesley, Wellesley College Library, *Wellesley, Mass., U.S.A.*
Williamstown, The Williams College Library, *Williamstown, Mass., U.S.A.*
Worcester, The Free Library, *Worcester, Mass., U.S.A.*

AUSTRIA-HUNGARY.

- Budapest**, Antikencabinet des Ungar. National-Museums, *Budapest, Hungary.*
Czernowitz, K. K. Universitäts-Bibliothek, *Czernowitz, Bukowina, Austria-Hungary.*
Prague, Archaeolog.-epigraphisches Seminar, *Universität, Prag, Bohemia* (Dr. Wilhelm Klein).
 „ Universitäts-Bibliothek, *Prag, Bohemia.*
Vienna, K.K. Hofbibliothek, *Wien, Austria Hungary.*

BELGIUM.

- Brussels**, Musées Royaux des Arts Décoratifs et Industriels, Palais du Cinquantenaire
Bruxelles Belgium.

CYPRUS.

- Cyprus Museum.

DENMARK.

- Copenhagen**, Det Store Kongelige Bibliothek, *Copenhagen Denmark.*

FRANCE.

- Lille**, La Bibliothèque de l'Université de Lille, 3, *Rue Jean Bart, Lille.*
Lyon, La Bibliothèque de l'Université, *Lyon.*
Montpellier, Bibliothèque Universitaire, *Montpellier.*
Nancy, La Bibliothèque de l'Université, *Nancy.*
 „ L'Institut d'Archéologie, l'Université. *Nancy.*
Paris, La Bibliothèque de l'Institut de France, *Paris.*
 „ La Bibliothèque de l'Université de Paris, *Paris.*
 „ La Bibliothèque des Musées Nationaux, *Musées du Louvre, Paris.*
 „ La Bibliothèque Nationale, *Rue de Richelieu, Paris.*
 „ La Bibliothèque de l'École Normale Supérieure, 45, *Rue d'Ulm, Paris.*
 „ L'Institut d'Archéologie Grecque de la Faculté des lettres de Paris à la Sorbonne.

GERMANY.

- Berlin**, Königliche Bibliothek, *Berlin.*
 „ Königliche Universitäts-Bibliothek, *Berlin.*
 „ Bibliothek der Königlichen Museen, *Berlin.*
Breslau, Königliche und Universitäts-Bibliothek, *Breslau.*
Dresden, Königliche Skulpturensammlung, *Dresden.*
Erlangen, Universitäts-Bibliothek, *Erlangen.*
Freiburg, Universitäts-Bibliothek, *Freiburg i. Br., Baden* (Prof. Steup).
Giessen, Philologisches Seminar, *Giessen.*
Göttingen, Universitäts-Bibliothek, *Göttingen.*
 „ Archäologisches Institut der Universität.
Greifswald, Universitäts-Bibliothek, *Greifswald.*
Heidelberg, Universitäts-Bibliothek, *Heidelberg.*
Jena, Universitäts-Bibliothek, *Jena.*
Kiel, Königliche Universitäts-Bibliothek, *Kiel.*
Königsberg, Königl. und Universitäts-Bibliothek, *Königsberg.*
Marburg, Universitäts-Bibliothek, *Marburg.*
 „ Library of the Archaeological Seminar.
Münster, Königliche Paulinische Bibliothek, *Münster i. W.*
Munich, Archäologisches Seminar der Königl. Universität, *Galleriestrasse 4, München.*
 „ Königl. Hof- und Staatsbibliothek, *München.*
Rostock, Universitäts-Bibliothek, *Rostock, Mecklenburg.*
Strassburg, Kunstarchäolog. Institut der Universität, *Strassburg.*
 „ Universitäts- und Landes-Bibliothek, *Strassburg.*

Tübingen, Universitäts-Bibliothek, *Tübingen, Württemberg.*

„ K. Archäolog. Institut der Universität, *Wilhelmstrasse, 9, Tübingen, Württemberg.*

Würzburg, K. Universität, Kunstgeschichtliches Museum, *Würzburg, Bavaria.*

GREECE.

Athens, The American School of Classical Studies, *Athens.*

„ K. K. Oesterreichisches Archäolog. Institut., *Boulevard Alexandras 18, Athens.*

HOLLAND.

Leiden, University Library, *Leiden, Holland.*

Utrecht, University Library, *Utrecht, Holland.*

ITALY.

Padua, Gabinetto di Archaeologia, Regia Università, *Padua.*

Rome, The American Academy, Porta San Pancrazio, *Rome.*

Turin, Biblioteca Nazionale. *Torino, Italy.*

NORWAY.

Christiania, Universitäts-Bibliothek, *Christiania, Norway.*

RUSSIA.

Petrograd, La Bibliothèque Impériale Publique, *Petrograd, Russia.*

SWEDEN.

Stockholm, Kongl. Biblioteket, *Stockholm, Sweden.*

Uppsala, Kungl. Universitetets Bibliotek, *Uppsala, Sweden.*

SWITZERLAND.

Geneva, La Bibliothèque Publique, *Genève, Switzerland.*

Lausanne, L'Association de Lectures Philologiques, *Avenue Davel 5, Lausanne*
(Dr. H. Meylan-Faure).

Zürich, Zentral Bibliothek, *Zürich, Switzerland.*

SYRIA.

Jerusalem, École Biblique de St. Étienne, *Jérusalem.*

LIST OF JOURNALS, &c., RECEIVED IN EXCHANGE FOR THE JOURNAL OF HELLENIC STUDIES.

American Journal of Archaeology (Miss Mary H. Buckingham, 96, *Chestnut Street, Boston, Mass., U.S.A.*).

American Journal of Philology (Library of the Johns Hopkins University, *Baltimore, Maryland, U.S.A.*).

Analecta Bollandiana, Société des Bollandistes, 22, *Boulevard Saint-Michel, Bruxelles.*

Annales de la Faculté des Lettres de Bordeaux *Revue des Études Anciennes*—*Bulletin Hispanique*—*Bulletin Italien*). Rédaction des *Annales de la Faculté des Lettres, L'Université, Bordeaux, France.*

- Annals of Archaeology and Anthropology (The Institute of Archaeology, 40, *Bedford Street, Liverpool*).
- Annual of the British School at *Athens*.
- Annuario della Regia Senola di Atene, *Athens, Greece*.
- Archiv für Religionswissenschaft (B. G. Teubner, *Leipzig*).
- Berliner Philologische Wochenschrift (O. R. Reisland, *Carlsstrasse 20, Leipzig, Germany*).
- Bulletin de Correspondance Hellénique (published by the French School at *Athens*).
- Bulletin de l'Institut Archéol. Russe, à Constantinople (M. le Secrétaire, *L'Institut Archéol. Russe, Constantinople*).
- Bulletin de la Société Archéologique d'Alexandrie, *Alexandria*.
- Bullettino della Commissione Archeologica Comunale di Roma (Prof. Gatti, Museo Capitolino, *Rome*).
- Byzantinische Zeitschrift
- Catalogue général des Antiquités Égyptiennes du Musée du Caire, with the Annales du Service des Antiquités de l'Égypte, *Cairo*.
- Classical Philology, *University of Chicago, U.S.A.*
- Ephemeris Archaeologica, *Athens*.
- Glotta (Prof. Dr. Kretschmer, *Florianigasse, 23, Vienna*).
- Hermes (Herr Professor Friedrich Leo, *Friedländer Weg, Göttingen, Germany*).
- Jahrbuch des kais. deutsch. archaol. Instituts, *Corneliusstrasse No. 21, Berlin*.
- Jahreshefte des Österreichischen Archäologischen Institutes, *Turkenstrasse 4, Vienna*.
- Journal of the Anthropological Institute, and Man, 50, *Great Russell Street, W.C.*
- Journal of Philology and Transactions of the Cambridge Philological Society.
- Journal of the Royal Institute of British Architects, 9, *Conduit Street, W.*
- Journal International d'Archéologie Numismatique (M. J. N. Svoronos, Musée National, *Athens*).
- Klio (Beiträge zur alten Geschichte), (Prof. E. Kornemann, *Neckarhalde 55, Tübingen*).
- Mélanges de la Faculté Orientale de l'Université S. Joseph, *Beyrouth, Syria*.
- Mélanges d'Histoire et d'Archéologie, *École française, Palazzo Farnese, Rome*.
- Memnon (Prof. Dr. R. Freiherr von Lichtenberg, *Lindenstrasse 5, Berlin Sudende, Germany*).
- Memorie dell' Instituto di Bologna, Sezione di Scienze Storico-Filologiche (R. Accademia di Bologna, *Italy*).
- Mitteilungen des kais. deutsch. Archäol. Instituts, *Athens*.
- Mitteilungen des kais. deutsch. Archäol. Instituts, *Rome*.
- Mnemosyne (c/o Mr. E. J. Brill), *Leiden, Holland*.
- Neapolis, Signor Prof. V. Macchioro, *Via Civillo 8, Naples*.
- Neue Jahrbücher, Herrn Dr. Rektor Ilberg, Kgl. Gymnasium, *Wurzen, Saxony*.
- Notizie degli Scavi, R. Accademia dei Lincei, *Rome*.
- Numismatic Chronicle, 22, *Albemarle Street*.
- Philologus. Zeitschrift für das klassische Altertum (c/o Dietrich'sche Verlags Buchhandlung, *Göttingen*).
- Praktika of the Athenian Archaeological Society, *Athens*.
- Proceedings of the Hellenic Philological Syllogos, *Constantinople*.
- Publications of the Imperial Archaeological Commission, *St. Petersburg*.
- Revue Archéologique, c/o M. E. Leroux (Editeur), 28, *Rue Bonaparte, Paris*.
- Revue des Études Grecques, 44, *Rue de Lille, Paris*.
- Revue Epigraphique (Mons. A. J. Reinach, 31, *Rue de Berlin, Paris, VIII^e*).
- Rheinisches Museum für Philologie (Prof. Dr. A. Brinkmann, *Schumannstrasse 58, Bonn-am-Rhein, Germany*).
- Studien zur Geschichte und Kultur des Altertums (Prof. Dr. E. Drerup, *Kaiser-Strasse 33, Munich, Germany*).
- Wochenschrift für klassische Philologie, *Berlin*.

PROCEEDINGS

SESSION 1914-15

During the past Session the following Papers were read at General Meetings of the Society :—

November 17th, 1914. Professor Percy Gardner : ‘ *The silver Lanx from Corbridge at Alnwick Castle* ’ (see *J.H.S.* xxxv. p. 66).

February 9th, 1915. Mr. R. M. Dawkins : *The Modern Greeks in Asia Minor* (see below, pp. xlv., xlvii.).

May 4th, 1915. Professor J. Linton Myres : *The Excavations in Cyprus made in 1913 on behalf of the Cyprus Museum* (see below, pp. xlvii., xlviii.).

June 29th, 1915. Dr. Walter Leaf : *Presidential Address* (see *J.H.S.* xxxv. p. 161).

THE ANNUAL MEETING was held at Burlington House on June 29th, 1915.

Mr. George A. Macmillan, Hon. Secretary, presented the following Annual Report of the Council :—

The Council beg leave to submit the following report for the Session 1914-15.

So far as public obligation has permitted, the work of the Society has been carried on successfully throughout the Session. The usual meetings have been held, very fair use has been made of the library and photographic collection, and the losses of membership due to present circumstances have been, as will be seen by the paragraph on Finance, less than might have been expected.

Changes on the Council, etc.—The Society has lost during the year one of its Vice-Presidents, Professor Ingram Bywater. His death is a severe loss, not only to the study of Greek Philosophy and textual criticism, in which he held a foremost rank among European scholars, but to a large circle of students and friends who owed much to his personal inspiration and kindness.

In Dr. A. Conze the Society has lost a venerated honorary member. While his monumental publication on Grave Reliefs is perhaps his most considerable work, his earlier book on the North Greek islands will always

attract the regard of wandering scholars. Published in 1860, this volume remains a standard of what an archaeological traveller may hope to observe and record. His interest in British students of many generations is kindly remembered.

The Council have had pleasure in inviting the distinguished Danish scholar, Dr. A. Kinch, to become an honorary member of the Society. Mr. H. Stuart Jones has been nominated a Vice-President, and Messrs. J. Beazley, W. H. Buckler, and F. M. Cornford have been asked to fill vacancies on the Council.

The duties of auditing the Society's accounts have fallen on Mr. C. F. Clay, his co-auditor, Mr. W. E. F. Macmillan, being engaged on active service.

Strabo on Asia Minor.—The President brought before the Council a proposal that the Society should undertake an edition of the three books of Strabo (xii-xiv) dealing with Asia Minor. The proposal was approved, and the following were appointed or co-opted as Committee to consider the execution of it: Messrs. T. W. Allen, J. G. Anderson, W. H. Buckler, F. W. Hasluck, G. F. Hill, D. G. Hogarth, Dr. Walter Leaf (Chairman), Mr. G. A. Macmillan, Sir W. Ramsay, Miss Ramsay, and Mr. Penoyre (Secretary).

The Committee have met and decided that the edition should comprise (1) a Greek text, (2) an English translation, (3) a full commentary with maps and probably illustrations. The war will cause some delay in carrying out the work; but it has been found possible to allocate large portions to such eminent authorities as Sir W. Ramsay, Dr. Leaf, Mr. D. G. Hogarth, Mr. J. G. Anderson, Mr. W. H. Buckler, and others, and substantial progress is being made on materials already in hand.

General Meetings.—At the first General Meeting, held November 17th, Professor Percy Gardner read an illustrated paper on 'The Silver Lanx from Corbridge at Alnwick Castle.' Professor Gardner's interesting paper will be published in the first part of the *Journal* for 1915.

At the second General Meeting, held on February 9th, 1915, Mr. R. M. Dawkins read a paper on 'The Modern Greeks in Asia Minor.' The subject was limited to such portions of the Christian populations of Asia Minor as are Greek in religion, sentiment and language, excluding, however, the Greeks of the trading communities in the coast towns and those who have settled in the country at different times since the Turkish conquest. The places where the Christians have retained their language and speak Greek, not as a result of the recent activity of Greek Schools but as an inheritance from the old Byzantine times, are the two large districts of Pontos and Cappadocia, and the isolated villages of Livisi on the coast of Lycia, Sille near Konia, and Pharasa and a few other small places in the Anti-Taurus mountains. The dialect spoken at Gyoide in the Katakekaumene district has recently become extinct. Of these districts Pontos is by far the

largest, and its dialect is much better known than any of the others. The paper dealt with the dialects of Sille, Pharasa, Cappadocia, and Pontos, giving the results of four journeys undertaken for this purpose. A series of slides to illustrate the pastoral and agricultural way of life of these people among the mountains, plains and rock-cut dwellings of Cappadocia was also given.

Turning to an analysis of these dialects, he remarked on the rarity of those Italian loan-words which are so common in ordinary Greek. There is on the other hand no lack of the Latin words generally found in Greek. The reason for this is that between the late Roman and early Byzantine period, when the Latin words were taken into Greek, and the period following the Fourth Crusade, which gave the Italian words to the language, there occurred the first irruptions of the Turks, which separated the Greeks of Asia from their European brethren, and their language was in this way shielded from the influence of Italian. In the same way, of the Slavonic words found in modern Greek very few are in use in Asia. The only considerable Slavonic influence is the Russian element which present conditions are bringing into the vocabulary of Pontic. In the dialect of Cappadocia and still more in that of Pharasa there are some Armenian words, due to their neighbourhood of a large Armenian population. But by far the most important foreign element is the Turkish. This at Sille and Pharasa, and to a still greater degree in Cappadocia, has affected not only the vocabulary, but also the phonology, inflexions and even the syntax. This pressure of Turkish and the influence of the Greek taught in the schools are the two dangers which menace the existence of these dialects.

Apart from this Turkish influence, the dialects of Asia, and especially Pontic, Cappadocian and the dialect of Pharasa, resemble one another much more closely than they resemble any other form of Modern Greek. They have to some extent a common vocabulary, and preserve several ancient forms which are elsewhere lost. Their development has also diverged considerably from the lines followed by common Greek. It seems that these divergences are comparatively ancient, and they thus point to a variety of the *κοινή* spoken in Asia Minor and perhaps in the islands adjoining it. In this connexion it may be noted that some Asiatic features are to be found in the dialects of Cyprus and Chios, although taken as a whole these belong to the very strongly marked group of dialects spoken in the Southern Sporades. In the present state of our knowledge the two chief desiderata are a full vocabulary of Cappadocian and some knowledge of the almost unknown dialects which are spoken in a few villages on the upper waters of the Halys and Lycus; these are probably some variety of Pontic, and a knowledge of them might cast light on the origin of the dialect of Pharasa, which has a very marked resemblance to Pontic.

At the third General Meeting, which was held on May 4th, 1915, Professor J. Linton Myres read a paper on 'The Excavations in Cyprus,

made in 1913, on behalf of the Cyprus Museum,' of which he has kindly supplied the following summary :—

The Government of Cyprus having provided a sum of £450 for antiquarian research excavations were taken in the autumn of 1913 by Professor Myres, with the assistance of Mr. Menelaos Markides, the keeper of the Cyprus Museum, and Mr. L. H. D. Buxton, B.A., of Exeter College, Oxford. The latter was enabled by a grant from the British Association for the Advancement of Science to follow the whole course of the work and devote himself to the study of the human remains, and of the physical character of the modern population of each district.

The first site excavated was near the village of Levkoniko in the Famagusta district, where some large statues had recently been found by the villagers. A small rural sanctuary was cleared, containing a remarkable deposit of stone sculptures, representing all periods of workmanship from the seventh century B.C., to the Graeco-Roman period, and almost unique for the brilliant preservation of its painted surfaces.

At Enkomi, near Salamis, tombs were opened in the Necropolis whence the British Museum obtained a fine series of late Minoan antiquities. But this site is now nearly exhausted : only two tombs were found intact, and the results of the operations here were mainly topographical. Careful examination of the megalithic building known as 'Saint Catharine's Prison' excluded the possibility that it is of early date, and confirmed the architectural evidence which assigns it to the Roman period.

At Lampousa, near Lapethos, on the north coast, where important Byzantine treasures have been found at various times, a small area of the site was completely cleared, and found to have been deeply quarried and quite rebuilt in the Roman period. Objects however were found in the debris, of Hellenic and even of late Bronze Age styles.

Between Lapethos and the sea, an unusually rich series of tombs of early and middle Bronze Age, quite undisturbed, yielded many bronze implements, a large quantity of typical pottery, and a remarkable type of conventionalised figurines. It was possible, for the first time, to determine the mode of interment, and the physical characters of the population, which was already a mixture of 'Mediterranean' and 'Alpine' types.

At Larnaca, a complete section of the Bamboula Hill provided the first stratified series of Cypriote pottery, and important guidance for the topography and history of ancient Kition.

The objects found in these excavations are in the Cyprus Museum : a full report will be published shortly.

Library, Photographic and Lantern Slide Collections.—The accessions to the Joint Library during the past Session were : Hellenic volumes, 109 (=78 books) ; completed periodicals, 43 ; pamphlets, 5. To these should be added Roman volumes, 15 (=14 books) ; volumes of periodicals, 2. These together make a total of 174 items, against 484 of last year.

The number of volumes borrowed was 678, and the number of visits paid to the Library, 650 as against 1,087 and 1,072 respectively for the last session.

The Council acknowledge with thanks gifts of books from the following bodies : H. M. Government of India, The British Academy, the Trustees of the British Museum, the Director of the Service des Antiquités de l'Égypte, the Egyptian Exploration Fund.

The following publishers have presented copies of recently published works: Messrs. G. Bell and Son, Blackwell, Fratelli Bocca, Bruckmann, P. Geuthner, Lee-Warner, Macmillan and Co., Marcus and Weber, Methuen, G. P. Putnam's Sons, B. Quaritch, G. Reimer, B. Seeber, Schöningh, Teubner, and the University Presses of the following Universities, Cambridge, Oxford, and Virginia.

The following authors have presented copies of their works: Messrs. J. de Mot, L. Galante, C. Hadaczek, W. R. Halliday, Lehmann-Haupt, Miss C. G. Harcum, J. D. Rolleston, Romstedt, F. P. Weber, S. E. Winbolt, F. Wright.

Miscellaneous donations of books have been received from the Hon. F. Amherst, Miss C. A. Hutton, and Miss C. Sharpe.

The slides hired during the Session were 2,376, those sold 2,268: 214 photographs were sold. The corresponding figures for last Session were 3,746, 1,681 and 439.

The Council beg to thank the following donors of slides and negatives: The British School at Athens, the Royal Numismatic Society, Prof. R. Burrows, Miss Mudie Cooke, Mr. G. Dickins, Mr. J. Droop, Mr. B. Fletcher, Mr. E. S. Forster, Mr. E. N. Gardiner, Prof. P. Gardner, Miss Gosse, Mr. F. W. Hasluck, Mr. G. F. Hill, Rev. J. H. Hopkinson, Mr. J. G. Milne, Miss Virtue-Tebbs, Mr. A. J. B. Wace.

Finance.—Naturally the Income of the Society has suffered during the current year. A considerable decrease in the amount received for members' subscriptions has to be recorded, while fewer new members have been elected, with a consequent reduction in the receipts for Entrance Fees. Subscriptions from the Libraries, apart from enemy countries, have been well maintained, and the decrease under this heading represents the amount usually received from Germany and Austria. The total drop in Subscriptions and Entrance Fees compared with last year amounts to about £100. The amount received by the sale of the *Journal* is less by £70, making a total decrease in the ordinary revenues of about £170. To meet this some economies have been necessary, and it will be seen that considerable reductions have been made in expenditure on the *Journal* and the Library, and that outlay on Postage, Stationery, and Miscellaneous Expenses is lower than last year. Under the Lantern Slides and Photographs Account the sum of £20 has been received from the Roman Society during the year as a contribution to the cost of the new Slide Catalogue. This amount, together with some large items for the sale of Slides, has produced a substantial balance on the right side of this account, which to some extent offsets the large adverse balance of last year. The net result of the Income and Expenditure Account for the year shows a balance to the good of £39.

The Cash balance stands at £472, as against £516 last year, and the Debts Receivable are £37 less. Against this, the Debts Payable are decreased to the extent of £67, which practically makes matters even.

The amount of arrears of members' subscriptions outstanding when the books closed was £134, but this amount is omitted in the making up of accounts.

The losses on the ordinary membership roll have brought the numbers down from 932 to 901. Including the Libraries in the enemy countries, whose subscriptions it is hoped will ultimately be received, the total now stands at 217, as against 209 last year, an increase of eight.

Although the year just ended has not resulted in a financial deficit, it is anticipated that the income for the ensuing year will be further reduced.

Conclusion.—Up till now, since the war began, the Society has been running, and running smoothly, on the momentum gathered of many years. This process cannot be continued indefinitely. The Council asks for nothing inconsistent with pressing public obligation; yet, since the Society stands for the beauty, moderation, and wisdom of life crystallised in ancient Hellas, it does ask for all the practical help on which it can honourably call to maintain and develop and promulgate those ideals.

The Chairman moved the adoption of the foregoing Annual Report, which resolution was seconded by Lord Cromer and carried unanimously.

The printed list of the Vice-Presidents, Members of Council and Officers, nominated by the Council for election or re-election, was adopted, no alternative names having been submitted.

A vote of thanks to the auditor, Mr. C. F. Clay, proposed by Mr. Penoyre, was carried unanimously.

The Chairman then delivered his address, and, after discussion, the proceedings terminated by a vote of thanks moved by Lord Cromer.

FINANCIAL STATEMENT.

A comparison with the receipts and expenditure of the last ten years, is furnished by the following tables :—

ANALYSIS OF RECEIPTS FOR THE YEARS ENDING :—

	31 May, 1906.	31 May, 1907.	31 May, 1908.	31 May, 1909.	31 May, 1910.	31 May, 1911.	31 May, 1912.	31 May, 1913.	31 May, 1914.	31 May, 1915.
Subscriptions. Current	£ 789	£ 753	£ 759	£ 773	£ 771	£ 766	£ 747	£ 776	£ 765	£ 742
Arrears	90	72	70	82	82	84	78	87	66	61
Life Compositions	94	47	47	15	31	94	15	110	15	26
Libraries	168	173	188	190	197	196	196	201	214	189
Entrance Fees	103	65	78	94	107	65	50	134	54	31
Dividends	44	61	62	62	62	62	62	62	63	68
Rent : (B.S.A., B.S.R., and Archaeological Institute) ..	...	10	10	10	13	22	20	20	20	30
Endowment Fund	475	17	23	2	6	1	1	16	3	1
"Excavations at Phylakopi," sales	28*	21"	18*	12"	7*	10*	4*	4*	5*	4*
"Facsimile Codex Venetus," sales	8*	17"	3"	..	..	12*	4*	4*	4*	...
Lantern Slides Account	15*	3*	5"	..	7*	...	12*	3*	...	57*
Emergency Fund (for Library Fittings) .....	...	..	..	..	327	67	...	...	..	..
Rent, Use of Library, &c. (Roman Society) .....	..	..	..	..	..	38	66	55	65	80
	1,814	1,239	1,263	1,240	1,610	1,417	1,255	1,472	1,279	1,289

* Receipts less expenses.

ANALYSIS OF EXPENDITURE FOR THE YEARS ENDING :—

	31 May, 1906.	31 May, 1907.	31 May, 1908.	31 May, 1909.	31 May, 1910.	31 May, 1911.	31 May, 1912.	31 May, 1913.	31 May, 1914.	31 May, 1915.
Rent	£ 98	£ 100	£ 100	£ 100	£ 109	£ 188	£ 205	£ 205	£ 205	£ 205
Insurance	13	14	15	15	13	14	13	10	9	10
Salaries	176	178	178	204	241	271	263	267	279	287
Library : Purchases & Binding	65	85	85	85	58	73	103	86	90	31
Heating, Lighting, Cleaning, &c. ....	...	...	..	..	..	36	51	36	40	40
Sundry Printing, Postage, Stationery, etc.	158	...	..	140	126	151	176	193	161	124
Lantern Slides Account. ....	...	..	..	..	..	..	..	..	..	..
Photographs Account. ....	...	..	..	17"	..	16"	...	...	130*	...
Cost of Journal (less sales).....	356	356	406	362	532	385	362	403	507	415
Cost of Journal, Reprint of Vol. XXIII. ....	...	...	...	..	..	..	..	..	..	..
Grants	125	225	340	185	150	150	150	150	150	150
Roman Society, Expenses of formation .....	..	...	..	..	51	5	..	..	..	..
Library Fittings .....	..	..	..	..	408	18	..	..	..	..
Depreciation of Stocks of Publications	104	10	6	53	52	3	4	2	2	2
	1,095	1,069	1,249	1,161	1,740	1,310	1,327	1,352	1,573	1,264

* Expenses less sales.

Dr. 'JOURNAL OF HELLENIC STUDIES' ACCOUNT. FROM JUNE 1, 1914, TO MAY 31, 1915. Cr.

To Printing and Paper. Vol. XXXIV, Part II., and XXXV, Part I.	312	10	1	£	s.	d.
„ Plates	33	0	9			
„ Drawing and Engraving	31	8	6			
„ Editing and Reviews	74	7	0			
„ Packing, Addressing, and Carriage to Members ..	52	3	0			
	<hr/>			503	9	4

£503 9 4

NOTE.—Owing to Vol. XXXV, Part I, not being issued till after the close of the financial year, and actual figures being impossible, approximate figures of the cost, and an estimated amount for the sales of this part have been included above.

lii

'EXCAVATIONS AT PIYLAKOPI' ACCOUNT. FROM JUNE 1, 1914, TO MAY 31, 1915.

Column showing Financial Result from Date of Publication to May 31, 1915.	Column showing Financial Result from Date of Publication to Current Year.
<p>Deficit Balance brought forward (excluding value of Stock)</p> <p>Balance on Current Year to Income and Expenditure Account</p>	<p>By Sale of 5 Copies during year</p> <p>Deficit Balance at May 31, 1915 (excluding value of Stock)</p>
<p>£ s. d.</p> <p>135 6 11</p> <p>—</p> <p>£135 6 11</p>	<p>£ s. d.</p> <p>—</p> <p>4 10 0</p> <p>£4 10 0</p>

'FACSIMILE OF THE CODEX VENETUS OF ARISTOPHANES' ACCOUNT. FROM JUNE 1, 1914, TO MAY 31, 1915.

	Column showing Financial Result from Date of Publication to May 31, 1915.		Account for Current Year.
	£	s. d.	£
To Deficit Balance brought forward (excluding Value of Stock)	78	3 0	—
" Half Balance to American Archaeological Institute	—	—	—
" Half Balance to Income and Expenditure Account	—	—	—
	£78	3 0	—
By Sale (nil)	—	—	—
" Hellenic Society's Deficit Balance at May 31, 1915 (excluding Value of Stock)	78	3 0	—
	£78	3 0	—

LANTERN SLIDES AND PHOTOGRAPHS ACCOUNT. FROM JUNE 1, 1914, TO MAY 31, 1915.

	£	s. d.	£	s. d.
To Slides and Photographs for Sale	64	15 5½	—	—
" Slides for Hire	2	14 10	96	7 0
" Photographs for Reference Collection	5	18 6	10	5 8
" Balance to Income and Expenditure Account ...	73	8 9½	106	12 8
	56	15 0½	3	11 2
	£130	3 10	20	0 0
	£130	3 10	£130	3 10

LIBRARY ACCOUNT. FROM JUNE 1, 1914, TO MAY 31, 1915.

	£	s. d.	£	s. d.
To Purchases	10	4 5	—	—
" Binding	21	4 5	—	—
	31	8 10	—	—
	£31	8 10	£31	8 10

By Received for Sales of Catalogues, Duplicates, &c.	2	12 10
" Donation received from Mr. H. W. Bell	4	17 4
" Balance to Income and Expenditure Account	23	18 8
	£31	8 10

INCOME AND EXPENDITURE ACCOUNT. From JUNE 1, 1914, to MAY 31, 1915.

Expenditure.		Income.	
	£ s. d.		£ s. d.
To Rent	205 5 0	By Members' Subscriptions—	
„ Salaries—		Proportion brought forward from last year..	446 10 3
Librarian and Secretary	140 0 0	Received during current year—Arrears.....	48 5 9
Assistant Treasurer	25 0 0	„ „ „ 1914	13 13 0
„ Librarian	82 17 6	„ „ „ 1915	706 12 8
Typist	38 12 9		1215 1 8
Insurance	286 10 3	Less $\frac{1}{2}$ of 1914 subscriptions forward to	
„ Miscellaneous Expenses	10 0 1	next year	412 4 1
„ Stationery	17 0 6		802 17 7
„ Postage	35 4 4		31 10 0
„ Sundry Printing, Rules, List of Members,	37 10 7 $\frac{1}{2}$	Members' Entrance Fees	
„ Notices, &c.	34 0 4	Libraries Subscriptions—	
„ Heating, Lighting, and Cleaning Library Premises	39 12 2	Proportion brought forward from last year..	110 4 10
„ Grants—		Received during current year—1912 & 1913	18 18 0
British School at Athens.....	100 0 0	„ „ „ 1914	144 18 0
„ „ Rome	50 0 0		274 0 10
Balance from Library Account	150 0 0	Less $\frac{1}{2}$ of 1914 subscriptions forward to	
„ Balance from 'Journal of Hellenic Studies'	23 18 8	next year	84 10 6
„ Account	414 19 0		189 10 4
„ Depreciation of Stocks of publications	1 10 0	Life Compositions brought into Revenue Account	26 5 0
„ Balance	39 0 5	„ Interest on Deposit Account	4 10 3
		„ Dividends on Investments	68 13 2
		„ Contributed towards Rent by British School at	
		Athens and British School at Rome for use of	20 0 0
		Society's room	10 0 0
		„ Rent of room occupied by the Royal Archaeolog-	
		ical Institute	
		„ Contributed by the Society for Promotion of	
		Roman Studies—	
		Rent	30 0 0
		Use of Library	50 0 0
			80 0 0
		„ Balance from 'Excavations at Phylakopi'	
		Account	4 10 0
		„ Balance from Aristophanes Codex Venetus Account	—
		„ Balance from Lantern Slides and Photographs	
		Account	56 15 0 $\frac{1}{2}$

£1294 11 4 $\frac{1}{2}$

£1294 11 4 $\frac{1}{2}$

liv

BALANCE SHEET. MAY 31, 1915.

<i>Liabilities.</i>		<i>Assets.</i>	
<i>£</i>	<i>s. d.</i>	<i>£</i>	<i>s. d.</i>
To Debts Payable	339 1 7½	By Cash in Hand—Bank ..	145 7 10
„ Subscriptions carried forward ..	496 14 7	„ on Deposit	300 0 0
„ Suspense Account	2 2 0	Assistant Treasurer ..	11 17 0½
„ Endowment Fund	576 2 0	Petty Cash	14 15 6½
(includes legacy of £200 from the late Canon Adam Farrar)			472 0 5
„ Emergency Fund (Library Fittings and Furniture)	394 18 6	„ Debts Receivable	139 7 10
Total Received		„ Investments (Life Compositions) ..	1384 3 11
„ Life Compositions and Donations.		„ (Endowment Fund) ..	570 0 0
Total at June 1, 1914 ..	£1936 4 0		1954 3 11
Received during year, 2 at		„ Emergency Fund—Total Expended ..	420 0 0
£15 15s. ..	31 10 0	„ Valuations of Stocks of Publications ..	478 10 0
	1907 14 0	„ Library	350 0 0
Income earned to Income and Ex-		„ Expenses 'Strabo' carried forward ..	1 1 10
penditure Account—Mem-	26 5 0		
bers deceased			
Excess of Assets over Liabili-	1941 9 0		
ties at June 1, 1914	31 15 10½		
Add Surplus Balance from In-			
come & Expenditure Account	39 0 5		
<i>Balance—Excess of Assets at</i>			
May 31, 1915	70 16 3½		
	£3821 4 0		£3821 4 0

*Examined and found correct.

(Signed) C. F. CLAY.

*In the absence of Mr. W. E. F. Macmillan on military service the accounts have been audited by Mr. C. F. Clay alone.

THIRTEENTH LIST OF
BOOKS AND PAMPHLETS

ADDED TO THE
LIBRARY OF THE SOCIETY
SINCE THE PUBLICATION OF THE CATALOGUE.

1914—1915.

With this list are incorporated books belonging to the Society for the Promotion of Roman Studies. These are distinguished by R.S.

NOTE.—The Original Catalogue published in 1903, with all the supplements appended, can be purchased by members and subscribing libraries at 3.6 (by post 3.10). Applications should be made to the Librarian, 19, Bloomsbury Square, W.C.

- Abbott (E.) Pericles and the Golden Age of Athens. [Heroes of the Nations.] 8vo. New York, &c. [N.D.]
- Adam (A. M.) *Editor.* See Plato.
- Allison (R.) *Translator.* See Plautus.
- Amherst of Hackney, Lady. A sketch of Egyptian History from the earliest times to the present day. 8vo. 1904.
- Ammonius. See Diogenes Laertius.
- Annuario della Regia Scuola Archeologica di Atene e delle Missioni Italiane in Oriente. From Vol. I. (1914). 4to. Bergamo. *In Progress.*
- Aristotle. The works of Aristotle translated into English :—
III. De mundo (E. S. Forster): De spiritu (J. F. Dobson). 8vo. Oxford. 1913.
IX. Magna moralia (St. G. Stock); Ethica Eudemia—De virtutibus et vitiis (J. Solomon). 8vo. Oxford. 1914.
- R.S. Arnold (W. T.) The Roman system of provincial administration to the accession of Constantine the Great. 3rd edition, revised by E. S. Bouchier. 8vo. Oxford. 1914.
- Boissonade (J. F.) *Editor* of Marinus. See Diogenes Laertius.
- Bouchier (E. S.) *Editor.* See Arnold (W. T.) Roman provincial administration.

R.S. = the property of the Roman Society.

- Brate (E.)** *Vanerna : en mytologisk Undersökning.*
8vo. Stockholm. 1914.
- British Museum.**
Department of Greek and Roman Antiquities.
Marbles and Bronzes : 50 plates from selected subjects in
the Department of Greek and Roman Antiquities.
Ed. A. H. Smith. 4to. 1914.
Select Bronzes, Greek, Roman and Etruscan. 73 plates,
with commentary by H. B. Walters. 4to. 1915.
- Bulle (H.)** *Orchomenos. I. Die älteren Ansiedlungsschichten.* [Abh.
d. I. Kl. d. K. Ak. d. Wiss. XXIV. (2)].
4to. Munich. 1907.
- Cavalieri (P. F. de') and Lietzmann (J.)** *Specimina codicum
Graecorum.* [Tab. in usum Schol. I.]
Small Fol. Bonn. 1910.
- Cesnola collection.** *The Metropolitan Museum of Art : handbook
of the Cesnola collection of antiquities from Cyprus.* By
J. L. Myres. 8vo. New York. 1915.
- R.S. Cheesman (G. L.)** *The Auxilia of the Roman army.*
8vo. Oxford. 1914.
- Cobet (C. G.)** *Editor.* See *Diogenes Laertius.*
- Cook (A. B.)** *Zeus : a study in ancient religion.* Vol. I.
8vo. Cambridge. 1914.
- R.S. Corstopitum.** *Report on the excavations in 1913.* By R. H.
Forster, W. H. Knowles, and F. Haverfield. (Arch. Ael.
XI.) 8vo. Newcastle-upon-Tyne. 1914.
- Davis (G. M. N.)** *The Asiatic Dionysus.* 8vo. 1914.
- Daya Ram Sahni.** *Catalogue of the Museum at Sarnāth.* See
India, Archaeological Survey.
- Demosthenes.** *The Crown, the Philippics and ten other Orations of
Demosthenes.* Translated by C. Rann-Kennedy. [Every-
man's Library.] 8vo. 1915.
- Diehl (C.)** *Manuel d'art byzantin* 8vo. Paris. 1910.
- Diogenes Laertius.** *Vitæ philosophorum.* Ed. C. G. Cobet.
Olympiodorus—Ammonius—Iamblichus—Porphyrius, Ed.
A. Westermann.
Marinus. Ed. J. F. Boissonade. 8vo. Paris. 1878.
- Dobson (J. F.)** *Translator.* See *Aristotle.*
- R.S. Duff (J. D.)** *Editor.* See *Seneca.*
- Edwards (G. M.)** *Editor.* See *Homer.*
- R.S. Edwards (G. M.)** *Editor.* See *Tacitus.*
- Egypt Exploration Fund.** 23rd Memoir. *The cemeteries of
Abydos. Part I. The mixed cemetery and Umm El-
Ga'ab.* By E. Naville, T. E. Peet, H. R. Hall, and
K. Haddon. 4to. 1914.
- Ehrle (F.) and Liebaert (P.)** *Specimina codicum Latinorum.* [Tab.
in usum Schol. III.] Small Fol. Bonn. 1912.

- Ἐρωτόκριτος.** See Kornaros, B.
- Evans (A. J.)** The Minoan and Mycenaean element in Hellenic life. [Smithsonian Report, 1913.] 8vo. Washington. 1914.
- Evans (A. J.)** The tomb of the Double Axes and Associated Group. Pillar rooms and ritual vessels of the "Little Palace" at Knossos. [Archaeologia LXV.] 4to 1914.
- Ferrabino (A.)** Kalypso: saggio d'una storia del mito. 8vo. Turin. 1914.
- Finlay (G.)** A history of Greece from its conquest by the Romans to the present time. Ed. H. F. Tozer. 7 vols. [To replace existing incomplete edition.]
 I. Greece under the Romans.
 II. The Byzantine Empire (1).
 III. The Byzantine and Greek Empires (2).
 IV. Mediaeval Greece and the Empire of Trebizond.
 V. Greece under the Ottoman and Venetian domination.
 VI. The Greek Revolution (1).
 VII. The Greek Revolution (2). Establishment of the Greek Kingdom. 8vo Oxford. 1877.
- Firth (J. B.)** Augustus Caesar and the Organisation of the Empire of Rome. [Heroes of the Nations.] 8vo. New York, &c. [1902]
- Fitzhugh (T.)** Indo-European Rhythm. [Univ. of Virginia: Bull. of the Sch. of Lat., 7.] 8vo Charlottesville, Va. 1912.
- Fitzhugh (T.)** The Origin of Verse. [Univ. of Virginia: Bull. of the Sch. of Latin, 8.] 8vo. Charlottesville. 1915.
- Forster (E. S.)** *Translator.* See Aristotle.
- Francke (A. H.)** See India, Archaeological Survey.
- Frazer (J. G.)** The Golden Bough. Vol. XII. Bibliography and general index. 8vo. 1915.
- Frichenhaus (A.)** See Tiryns.
- Friedlaender (J.)** Beitrage zur alteren Munzkunde. See Pinder (M.)
- Gauckler (P.)** See Inventaire des mosaïques de la Gaule.
- Hackl (R.)** See Tiryns.
- Haddon (K.)** See Egypt Exploration Fund.
- Hall (H. R.)** Aegean archaeology: an introduction to the archaeology of prehistoric Greece. 8vo. 1915.
- Hall (H. R.)** See Egypt Exploration Fund.
- R.S. Hammond (B. E.)** Bodies Politic and their governments. 8vo. Cambridge. 1915.
- Harcum (C. G.)** Roman cooks. 8vo. Baltimore. 1914.
- Harrison (M. C.)** *Translator.* See Seta (A. della).
- R.S. Haverfield (F.)** Roman Britain in 1913. [British Acad. Supp. Papers, II.] 8vo. 1914.
- Heaton (N.)** See Tiryns.

- Hogarth (D. G.)** The Ancient East. [Home University Library.]
8vo. 1914.
- Homer.** The Iliad of Homer done into English Prose by A. Lang,
W. Leaf, and E. Myers. [Globe edition.] 8vo. 1914.
- Homer.** Odyssey, Books VI. and VII. Ed. G. M. Edwards.
[Cambridge Elementary Classics.]
8vo. Cambridge. 1915.
- Hoskier (H. C.)** Codex B and its allies: a study and an indictment.
2 vols. 8vo. 1914.
- Iamblichus.** See Diogenes Laertius.
- India, Archaeological Survey of.**
XXXVIII. Antiquities of Indian Tibet. By A. H.
Francke. 4to. Calcutta. 1914.
Catalogue of the Museum of Archaeology at Sarnâth. By
Daya Ram Sahni. 8vo. Calcutta. 1914.
- R.S. Inventaire des mosaïques de la Gaule.** By G. Lafaye, P.
Gauckler, and F. G. de Pachtère. From I. (1909).
8vo. and Atlas. Paris. *In Progress*.
- R.S. Jacobsen (J. P.)** Manes. 8vo. Copenhagen. 1914.
- Karo (G.)** *Editor.* See Tiryns.
- Kern (O.)** Inscriptiones Graecae. [Tab. in usum Schol. VII.]
Small Fol. Bonn. 1913.
- R.S. Keyes, (C. W.)** The rise of the Equites in the third century of
the Roman Empire. 8vo. Oxford. 1915.
- Klassiker der Archäologie.** See Ross (L.) and Welcker (F. G.)
- Koldewey (R.)** The excavations at Babylon. 8vo. 1914.
- Kornaros (B.)** Ἐρωτόκριτος. Ed. S. A. Xanthoudides.
8vo. Heracleum. 1915.
- Lafaye (G.)** See Inventaire des mosaïques de la Gaule.
- Leeuwen (J. Van)** *Editor.* See Menander.
- Liebaert (P.)** Specimina codicum Latinorum. See Ehrlé (F.)
- Lietzmann (J.)** Specimina codicum Graecorum. See Cavaheri
(P. F. de').
- Marinus.** See Diogenes Laertius.
- Menander.** Hero—Disceptantes—Circumtonsä—Samia. Ed. J.
Van Leeuwen. 8vo. Leyden. 1908.
- Merrill (W. A.)** Corruption in the text of Lucretius. [Univ.
Californ. Class. Phil. publications, 2.]
8vo. Berkeley. 1914.
- Merrill (W. A.)** Proposed emendations of Lucretius. [Univ. Cali-
forn. Class. Phil. publications, 2.]
8vo. Berkeley. 1914.
- Metropolitan Museum of Art.** Cesnola collection. See Cesnola.
- Meyer (E.)** Forschungen zur alten Geschichte. II.
8vo. Halle. 1899.
- Morgan (M. H.)** *Translator.* See Vitruvius.

- Mount (C. B.)** Translations. *Excerpta quaedam poeseos Graece et Latine reddidit C.B.M.* 8vo. Oxford. 1915.
- R.S.** *Id.* Another copy.
- Mueller (W.)** See Tiryns.
- Murray (G.)** *Hamlet and Orestes: a study in traditional types.* [British Acad. Annual Shakespeare Lecture.] 8vo. 1914.
- Myres (J. L.)** Metropolitan Museum of Art: Handbook of the Cesnola collection of antiquities from Cyprus. See Cesnola.
- Naville (E.)** See Egypt Exploration Fund.
- Norton (R.)** Bernini and other studies. 8vo. New York and London. 1914.
- Oelmann (F.)** See Tiryns.
- Olympiodorus.** See Diogenes Laertius.
- Pachtere (F. G. de)** See Inventaire des mosaïques de la Gaule.
- Peet (T. E.)** See Egypt Exploration Fund.
- Pinder (M.) and Friedlaender (J.)** *Beiträge zur älteren Münzkunde.* I. 1, 2. 8vo. Berlin. 1851.
- Plato.** *The Apology of Socrates.* Ed. A. M. Adam. [Cambridge Elementary Classics] 8vo. Cambridge. 1914.
- R.S.** **Plautus.** *Plautus, five of his plays: translated into English verse by R. Allison.* 8vo. 1914.
- Porphyrius.** See Diogenes Laertius.
- Rann-Kennedy (C.)** *Translator.* See Demosthenes.
- Rodenwaldt (G.)** See Tiryns.
- Rolleston (J. D.)** *Lucian and Medicine.* [Proc. R. Soc. of Medicine VIII.] 8vo. 1915.
- Romstedt (M.)** *Die wirtschaftliche Organisation des athenischen Reiches.* 8vo. Weida i. Th. 1914.
- Ross (L.)** *Inselreisen.* [Klassiker der Archäologie.] 2 vols. 8vo. Halle. 1912-3.
- Sandys (J. E.)** *A short history of classical scholarship.* 8vo. Cambridge. 1915.
- R.S.** **Santacruz (S. G.)** *El solar Numantino.* 8vo. Madrid. 1914.
- Sartiaux (F.)** *Les Sculptures et la Restauration du temple d' Assos.* 8vo. Paris. 1915.
- Schubart (W.)** *Papyri Graecae Berolinenses.* [Tab. in usum Schol. II.] Small Fol. Bonn. 1911.
- Scott-Stevenson (Mrs.)** *Our ride through Asia Minor.* 8vo. 1881.
- R.S.** **Seneca.** *L. Annaei Senecae Dialogorum Libri X.-XII.* Ed. J. D. Duff. 8vo. Cambridge. 1915.
- R.S.** **Seta (A. della)** *Religion and Art: a study in the evolution of Sculpture, Painting and Architecture.* Trsl. M. C. Harrison. 8vo. 1914.

- R.S. Sharpe (M.)** The accuracy of the Domesday Land Measures in Middlesex, and their Roman Origin.
4to. Brentford. 1914.
- Smith (A. H.)** *Editor.* See British Museum.
- Solomon (J.)** *Translator.* See Aristotle.
- Stock (St. G.)** *Translator.* See Aristotle.
- Sykes (P. M.)** A history of Persia. 2 vols. 8vo. 1915.
- Tabulae in usum Scholarum.** See Cavalieri (P. F. de), Delbrueck (R.), Ehrle (F.), Diehl (C.), Kern (O.), Schubart (W.), and Tisserant (E.)
- R.S. Tacitus.** *Annales.* IV. Ed. G. M. Edwards.
8vo. Cambridge. 1915.
- Theander (C.)** Grekisk lyrik från stenar och papyri.
8vo. Stockholm. 1915.
- Thompson (M. S.)** The nomads of the Balkans. See Wace (A. J. B.)
- Tiryns: die Ergebnisse der Ausgrabungen des Instituts.**
2 vols. Ed. G. Karo.
I. Die Hera von Tiryns. By A. Frichenhaus.
Die 'geometrische' Nekropole. By W. Mueller and F. Oelmann.
II. Die Fresken des Palastes. By G. Rodenwalt, R. Hackl and N. Heaton. 4to. Athens. 1912-14.
Deposited: not to be taken out.
- Tisserant (E.)** Specimina codicum Orientalium. [Tab. in usum Schol. VIII.]
Small Fol. Bonn. 1914.
- Vitruvius.** The ten books on Architecture. Translated by M. H. Morgan: illustrated by H. L. Warren.
8vo. Cambridge. 1914.
- Wace (A. J. B.) and Thompson (M. S.)** The nomads of the Balkans.
8vo. 1914.
- Walters (H. B.)** *Editor.* See British Museum, Select bronzes.
- Warren (H. L.)** *Illustrator.* See Vitruvius.
- Welcker (F. G.)** Zoega's Leben. [Klassiker der Archæologie.]
2 vols. 8vo. Halle. 1912-3.
- Westermann (A.)** *Editor* of Olympiodorus, Ammonius, Iamblichus, Porphyrius. See Diogenes Laertius.
- Winbolt (S. E.)** Latin hexameter verse. 8vo. 1903.
- Wright (F.)** Greek Music. [Edinburgh Review, 1914.]
8vo. Edinburgh. 1914.
- Xanthoudides (S. A.)** *Editor.* See Kornaros.
- Zimmern (A. E.)** The Greek Commonwealth. 2nd edition.
8vo. Oxford. 1915.

R.S. = the property of the Roman Society.

SECOND LIST OF
ACCESSIONS TO THE CATALOGUE OF SLIDES
IN THE JOINT COLLECTION OF THE SOCIETIES FOR
THE PROMOTION OF HELLENIC AND ROMAN STUDIES

PUBLISHED IN VOL. XXXIII OF THE *JOURNAL OF HELLENIC STUDIES*,
AND ISSUED WITH VOL. IV OF THE *JOURNAL OF ROMAN STUDIES*.

(Subsequent accessions will be published annually.)

Copies of this Accession List may be had, price 3d.

TOPOGRAPHY AND EXCAVATIONS.

ASIA MINOR.

- 8119 **Melekopi**, well at.
 8124 **Misti**, general view.
 4361 **Pharasa**, Byzantine Castle.
 8142 **Sinasos**, S. Nicolas and rocks.
-
- 3334 **Constantinople**, Seraglio Point and Santa Sophia from across the Golden Horn.
 9078 " entrance to Black Sea from so-called Giant's Grave.
 4006 " column of Theodosius, relief (*J.H.S.* xxix, p. 67, fig. 6).
-
- 1802 **Famagosta**, St. George and the Cathedral Mosque.

CRETE.

- 1431 **Cnossus**, small palace with Roman house and fresco above.
 1432 **Hagia Triada**, drainage system.
 10,000 **Plati**, plan of late Minoan house.
 9999 " plan and section of tholos tomb.
 9107 " L.M. III house in A, vestibule and court looking S.
 9103 " " " court, with later walls removed, looking S.E.
 9113 " " " columned hall with vestibule and court, looking S.W.
 9109 " " " part of columned hall, looking N.W.
 9108 " houses in A; N. front looking S.E.
 9114 " vases in L.M.I house, to the S. of A group.

ISLANDS.

- 9146 **Delos**, plan of the site.
 9182 " the cave temple.
 9183 " a lion.
 9187 " Roman house, view from towards Rheneia.
 9188 " " mosaic in.
 9186 " "
 9064 **Paros**, Paroekia: Church of Hekatontapyliane, W. side from village.

N. GREECE.

- 4693 **Delphi**, the stadion.
 9129 „ the Castalian Spring: the source.
 9055 „ tholos at Marmaria.
 9056 „ temple of Athena Pronaia.
 9051 **Orchomenos**, prehistoric walls.
 9052 „ tholos tomb from without.
 9053 „ „ „ within.
 9054 „ Acropolis.
 9057 **Thermon**, temple of Apollo.
 9058 „ elliptical building.
 6384 **Thermopylae** and Artemisium, plan of the operations.

- 9081 **Ochrida**, S. Sophia, narthex from N.E.
 9083 „ „ main apse.
 9087 „ „ „ central dome of church from S.E.
 9085 „ (lake) monastery of Sveti Naoum, exterior.
 9069 **Salonika**, arch of Galerius, S. pier.
 9070 „ „ detail of W. face.
 9071 „ „ N. pier.

- 9993 **Corcyra**, the harbour.
 9189 **Ithaca**, entrance to harbour.

ATHENS.

- 9139 Temple of Nike Apteros, with altar (Restoration, drawing only).
 9180 Porch of the Maidens.
 9991 Olympieion with Acropolis behind.
 9121 Ilissus, view of the stream.
 9122 „ „

ATTICA.

- 9123 **Daphne**, the convent view from without.
 9061 **Hymettus**, monastery of Asteri.
 9120 „ monastery of Kaisariané, general view.
 9062 „ „ „ Church from S.W.
 9063 „ „ „ the courtyard.

PELOPONNESUS.

- 9149 **Epidaurus**, the plain of.

Olympia.

- 9041 Entrance to gymnasium.
 9042 N.W. corner of Altis.
 9043 Metroon and steps of treasury terrace.
 9044 Altar in treasury viii.
 9045 Small temple at W. end of treasury terrace.
 9046 N.W. corner of Stoa Poikile.
 9047 Bouleuterion.
 9048 S.W. processional gate from without.
 9049 „ „ within.
 9050 Bases of Roman statues in S.W. of altis.
 9995 Entry of Stadion.
 9154 **Mycenae**, Treasury of Atreus, *dromos*.
 9145 **Phigaleia** (Bassae): plan of the temple.

SICILY.

- 9191 **Syracuse**, Ortygia and Plemmyrion from fountain of Arethusa.
 9192 " entablature from gymnasium.
 9193 " 'altar of Hiero.'
 9194 " 'tomb of Timoleon.'
 9195 " 'ear of Dionysius.'
 9196 " Iatomia del Paradiso
 9197 " " dei Capucini.
 9198 " " "
 9199 " Euryalus, looking E.
 9200 " " 3rd trench, looking N.

ROME.

- B288 Temple of Venus and Rome.

The Palatine.

- B457 Temple of Magna Mater.
 B458 " " "
 B455 " " view from towards Capitol.
 B456 " " view of substructures of Domitianic buildings.
 B459 Lower chambers under the domus Tiberiana of Domitian.

- B130 Specus Aquae Claudiae.
 B6625 Bridge on the Appian Way.

ROMAN EMPIRE.

- B9595 **Bulla Regia**, peristyle of house.
 B9594 **Thugga-Trinina**, Temple of Jupiter, Juno and Minerva.
 B661 **Bath**, interior of the Roman bath.
 B662 " " "

INSCRIPTIONS.

- 9152 **Corcyra**, grant of *provenus* to Dionysios (B.M. *Guide to Greek and Roman life*, fig. 1).
 9151 " grant of *prozenia* to Pausanias (B.M. *Guide to Greek and Roman life*, fig. 2).

PREHELLENIC.

- 9153 Vases from Mochlos cemetery, E.M. ii. and iii.
 9339 Minoan vase, pea design.
 9990 Carved ivory plaques: peacock and lilies, drawings only (B.S.A. xi, p. 285, fig. 14).
 9388 Hagia Triada, fresco-painting; flowers.
 9011 Mycenaean dagger blades (after *Athenaion*).
 B2929 Rock tombs of the advanced Iron Age in Tuscany.

SCULPTURE.

EARLY RELIEFS.

- 9385 **Assyria**, Assurbanipal feasting.*
 9386 " wounded lion.*
 9387 " refugees swimming in river.*
 9131 **Delphi**. Cuidian treasury; detail of the frieze* four winged horses.
 9132 " " " detail of the frieze* equestrian group.
 9133 " Sicyonian treasury; Dioscuri and Idas.*

PHEIDIAN.

- 8169 Theseus,* head of, full face (*J.H.S.* xxxiii, p. 285, fig. 11).
 8168 Laborde head† cast before restoration (*J.H.S.* xxxiii, p. 288, fig. 16a).
 9138 Athena Parthenos. Restoration, drawing only. (Michaelis, *Arch. Athénarum*, p. 13).
 8338 Lemnian Athena†.

MISCELLANEOUS FIFTH CENTURY.

- 9130 Figure*, possibly from the pediment of one of the Treasuries. Delphi Mus

PRAXITELEAN.

- 8175 Cnidian Aphrodite, head of† (*J.H.S.* xxxiii, p. 282, fig. 6).
 8176 Eirene of Kephisodotus, head of† (*J.H.S.* xxxiii, p. 279, fig. 4).
 8171 Holkham head† (*J.H.S.* xxxiii, p. 277, fig. 2).

LATER RELIEFS.

- 9022 The Corybantes guarding the infant Zeus. Mus. Capitolino.
 B7343 Hellenistic relief: Perseus and Andromeda.
 B8624 Roman grave relief* of Sextus Adgennius Macrinus and his wife Licinia.
 9595 Sarcophagus at Felix Hall. Drawings only.
 9596 " " "
 9597 " " "
 9598 " " "
 9599 " * "
 9600 " *
 9399 Landscape design in stucco.* Farnesina. (*Rom. Mitt.* xxvi, p. 34, fig. 11.)

BRONZES.

- 9144 Statuette of a trumpeter from Sparta.*
 9119 Small Greek bronze relief of a dancing girl from Plati* (Crete).

TERRACOTTAS.

- 9398 Terracotta panel.* Scenes on the Nile. B.M.
 7406 Mould for lamp: Victor in chariot race wearing crown. B.M. Terracottas E. 79.
 (*Outline drawing only.*)
 9116 Greek pithos fragments from Plati* (Crete).
 9118 Greek pithos fragment from Plati* (found near Έμπολος).

* = from original or adequate reproduction.

† = from cast.

VASES.

BLACKFIGURED.

- 9038 Athena in combat with Enceladus¶ (Lenormant, *Elite* i, pl. 7).
 9007 Heracles and Cerberus¶ (*J.H.S.* xviii, p. 295).
 9009 Circe and the Comrades of Odysseus¶ (*J.H.S.* xiii, pl. 2).
 9141 Achilles contemplating the body of Hector: the soul of Patroclus hovering over the tomb.¶ (*G.A.V.* 199.)

- 9142 Ajax bearing the body of Achilles : the soul of Patroclus proceeds him. ¶ (*G. A. V.* 215.)
 9143 Souls of dead warriors ¶ (*Annalt*, 1883, pl. Q.)
 9006 'Lakonian' kylix ; Cadmus ¶ (*Arch. Zeit.* 1881, pl. 12).
 9390 Picnic scenes* (B.M. c, 855).
 9392 Olive gatherers.*
 9391 Maidens at a well.*
 9039 Ladies bathing at a fountain (Rayet and Collignon, fig. 50).

REDFIGURED.

- 9001 Apollo voyaging on the tripod to Delphi ¶ (Lenormant, *Elite* ii, pl. 6).
 9010 Artemis and lawn. ¶ Paris. (*J.H.S.* xxxiii, p. 105.)
 9393 Alcmene on pyre.*
 9002 Bellerophon and the Chimaera (Tischbein, i, pl. 1).
 9029 Boy jumping (*Arch. Zeit.* 1884, pl. 16).
 9023 The game of Cottabus (Schreiber, *Atlas*, pl. 78¹). ¶
 9008 Charon on the Styx (B.M. *White Athenian Lekythoi*, pl. 12). ¶

* from original.

¶ from adequate reproduction.

PAINTING.

- 9027 Sarcophagus from Corneto : Greek and Amazon fighting.
 B9120 Fresco painting : the punishment of Ixion, &c.
 9394 Pompeian painted architecture (*Rom. Mitt.* xxvi, p. 48, fig. 27).
 9395 " " (" " 28).
 9396 " " (" " pl. 8, fig. 2)
 9397 " " Museo Borbonico.
 9400 Pompeian painting : a harbour (*Rom. Mitt.* xxvi, pl. 9).
 A31 Roman wall painting. *P.B.S.R.* vii, pl. 2.
 A32 " " 3.
 A36 " " 4.
 A33 " " 5.
 A37 " *P.B.S.R.* viii, pl. 2.
 A38 " " 3.
 A39 " " 4.
 A30 " " 5¹.
 A35 " " 5².
 A34 " "
 A40 Painted ceiling in Atrium Domus (*Ant. Denk.* iii, pl. 14).
 A42 " " (" 15).
 A43 " " (" 16).
 A44 " " (" 17).
 A41 " " (" 18).
 9594 Vatican Virgil : Virgil's eclogues.
 9593 Esquiline Odyssey : the isle of Circe.

MOSAICS.

- 9589 Praeneste mosaic : denizens of the Nile.
 9590 " " " "
 9591 Mosaic from Villa of Hadrian : Dionysus and goats.
 9592 Mosaic from Althiburus : ships. (*Mon. Piot.*)
 9125 Daphne mosaic of the great dome of the convent : the Pantokrator.
 9126 Daphne mosaic of the Transfiguration.
 9127 Daphne mosaic : a group of saints.
 9003 S. Luke (Schulz and Barnesley, *St. Luke in Sturis*, frontispiece : top half).

COINS.

TOWNS, &c.

- 9012 **Achaean league**, *Æ*. (B.M. *Guide*, v, B. 25 and Cat. *Peloponnesus*, pl. 2¹⁹).
- 9013 **Aegina**, *Æ*. (B.M. Cat. *Attica*, pl. 23¹, 24¹, 25⁵.)
- 9014 **Aegospotamoi**, *Æ*. (Cat. *Thrace*, No. 1, p. 187.)
- 9015 **Ambracia**, *Æ*. (B.M. *Guide*, v, B. 10.)
- 9155 **Anemurium**, *Æ*, Primitive statue of Artemis. (B.M. Cat. *Lyraonia*, &c., pl. 7⁹.)
- 9156 **Aphrodisias** (Cariae), *Æ* Types showing Cultus statue of Aphrodite.
- 9017 **Arcadia**, *Æ*. (B.M. *Guide*, iii, B. 37.)
- 9018 **Argos**, *Æ*. (B.M. Cat. *Peloponnesus*, pl. 27¹. 12.)
- 9019 **Aspendus**, *Æ*. (B.M. *Guide*, ii, A. 39.)
- 9020 **Boeotia**, *Æ*. (B.M. Cat. *Central Greece*, pl. 57.)
- 9157 **Caesarea** (Cappadociae), *Æ*. Type showing primitive cultus figure. (B.M. Cat. *Galatia*, etc., pl. 9¹⁹.)
- 7403 **Carthago Nova**. Hispano-Carthaginian Barcid coinage. (*N.C.* 1914, pl. 8¹, &c.)
- 7412 **Caulonia**, *Æ*. Restruck on a Corinthian stater. (*N.C.* 1914, pl. 7¹.)
- 9021 **Ceos**. (B.M. Cat. *Crete*, pl. 21⁴.)
- 7415 **Chios**, EL. and *Æ*. Period I, 625-575 B.C. (*N.C.* 1915, pl. 1, 2.)
- 7416 " " " " II, 575-545 B.C. " "
- 7417 " *Æ*. " " III, 545-500 B.C. " "
- 7418 " " " " III and IV, 500-478 B.C. " "
- 7409 **Corinth**, *Æ*. Stater 4th century. (*N.C.* 1914, pl. 7¹³.)
- 9158 **Cyrene**, *Æ*. Types showing Chariot and Zeus Ammon.
- 9037 **Cythera**. (B.M. Cat. *Peloponnesus*, pl. 21¹⁵.)
- 9031 **Elis**, *Æ*. (B.M. Cat. *Peloponnesus*, pl. 10¹², pl. 11¹.)
- 9159 **Ephesus?** EL. Earliest inscribed coin (B.M. Cat. *Ionica*, pl. 3^a)
- 9160 **Ephesus**, *Æ*. 5th century. Bee types
- 9161 " *Æ*. 4th century. Bee and deer types.
- 9162 " *Æ*. 3rd century. Hellenic Artemis: Berenice II.
- 9163 " *Æ*. 87-84 B.C. Artemis types.
- 9165 " *Æ*. Artemis as huntress: Artemis riding the deer.
- 9166 " *Æ*. Artemis cultus statue.
- 9164 " gold and silver plaques from Ephesus and Camirus, showing the type of *πότνια θηρῶν*.
- 9032 **Eretria**, *Æ*. (B.M. *Guide*, ii, B. 39.)
- 9033 **Euboea**, *Æ*. (B.M. Cat. *Central Greece*, pl. 175.)
- 9167 **Gela**, *Æ*. Tetradrachm, 5th cent., Sosipolis crowning bull. (G. F. Hill, *Coins of Ancient Sicily*, pl. v, 11.)
- 7408 **Gela**, *Æ*. 5th century. Types showing bulls wearing wreaths. (*N.C.* 1914, pl. 7⁹.)
- 9168 **Hypaepa**, *Æ*. Artemis Anaitis in temple (temp. Hadrian).
- 9169 **Idalium**, *Æ*. Sphinx and lotus. Nagidus. *Æ*. Aphrodite.
- 7401 **Ionian**, EL. Pegasus obverses. (*N.C.* 1914, pl. 8¹.)
- 9170 **Magnesia ad Maeandrum**, *Æ*. Leukophryene.
- 7402 **Melos**, *Æ*. 5th century staters. (*N.C.* 1914, pl. 7¹⁴⁻¹⁶.)
- 7410 **Messana** (Siciliae), *Æ*. Tetradrachms lettered A, B, D, &c. (*N.C.* 1914, pl. 7¹².)
- 7414 **Metapontum**, *Æ*. 4th cent. (*N.C.* 1914, pl. 7².)
- 9169 **Nagidus**, *Æ*. Aphrodite. Idalium, *Æ*. Sphinx and lotus.
- 7407 **Nysa**, Sidon and Tyre. Types showing prize crowns.
- 9174 **Paphos**, Pergamon, Sardes, *Æ*. Shrines of Paphian Aphrodite.
- 9171 **Perga**, *Æ*. Pergaeon Artemis (autonomous and imperial).
- 9172 " *Æ*. tetradrachm: head of Hellenic Artemis. (B.M. Cat. *Lycia*, etc., pl. 24¹.)
- 9173 " *Æ*. tetradrachm: Artemis the huntress.
- 9174 **Pergamum**, Paphos, Sardes, *Æ*. Shrines of Paphian Aphrodite.
- 7411 **Rhegium**, *Æ* and *Æ*. Hemiohols. (*N.C.* 1914, pl. 7³.)
- 9175 **Samos**, *Æ*. Cultus statue of Hera.
- 9174 **Sardes**, Paphos, Pergamon, *Æ*. Shrines of Paphian Aphrodite.

- 9176 **Selinus**, \mathcal{A} . River gods Hypsas and Selinus sacrificing.
 9177 " \mathcal{A} . Artemis and Apollo : Selinus : Heracles : Hypsas.
 7407 **Sidon**, Nysa, Tyre. Types showing prize crowns.
 7413 **Thurium**, \mathcal{A} . Didrachms of reduced standard, old and new types. (*N.C.* 1914, pl. vii⁴.)
 7407 **Tyre**, Sidon and Nysa. Types showing prize crowns.

RULERS.

- 9016 **Antigonus Gonatas**, \mathcal{A} . (*B.M. Guide*, v, B. 5.)
 7405 **Antiochus** III, Seleucus I and III, \mathcal{A} . Tetradrachms, (*N.C.* 1914, pl. 87-9).
 B663 **Clodius Macer** and Civil Wars, *denarii* : Nero and Civil Wars, *aurei*.
 7404 **Eucratides** and Timarchus of Bactria, \mathcal{A} . (*N.C.* 1914, pl. 8¹⁰, &c.)
 9034 **Eumenes** II, \mathcal{A} . (*B.M. Cat. Mysia*, pl. 24⁵.)
 B666 **Galba**, *aureus* and *sestertii*.
 B665 " *aurei* and *denarii* : Civil Wars, *denarii*.
 B664 " and Civil Wars, *denarii* : Nero, *asses*.
 9035 **Gordian** III. (*B.M. Cat. Med.*, pl. 41⁴.) Reverse only, contests in Circus.
 9036 " Reverse only, animals fighting in arena. (*B.M. Cat.*, pl. 42¹.)
 B668 **Nero** and Civil Wars, *aurei* : Clodius Macer and Civil Wars, *denarii*.
 B664 " *asses* : Galba and Civil Wars, *denarii*.
 3383 **Orodes** I. of Parthia : restructed tetradrachm (*B.M.C.*, pl. 14¹⁰), obverse.
 3384 " " " " reverse.
 B667 **Otho** and Vitellius, *aurei* : Civil Wars, *denarii*.
 7405 **Seleucus** I, III, Antiochus III, \mathcal{A} . Tetradrachms. (*N.C.* 1914, pl. 87-9.)
 7404 **Timarchus** and Eucratides of Bactria, \mathcal{A} . (*N.C.* 1914, pl. 8¹⁰ &c.)
 B669 **Vitellius**, *aurei* and *denarii*.
 B670 " *aurei*, *denarius* and *as*.
 B668 " *denarius* and *as*.
 B667 " and Otho, *aurei* ; Civil Wars, *denarii*.

MINOR ARTS.

- 9004 Ivory plaque : S. Michael. (*B.M. Cat. of Med. Antiquities*, pl. 8.)
 9005 Esquiline Treasure ; casket of Proiecta. (*B.M. Cat. of Med. Antiquities*, pl. 13.)

GREEK PEASANT TYPES.

- 4694 An old farmer on his mule.
 4695 A woman spinning.
 9994 On the march.
 9992 A shepherdess.

NOTICE TO CONTRIBUTORS.

THE Council of the Hellenic Society having decided that it is desirable for a common system of transliteration of Greek words to be adopted in the *Journal of Hellenic Studies*, the following scheme has been drawn up by the Acting Editorial Committee in conjunction with the Consultative Editorial Committee, and has received the approval of the Council.

In consideration of the literary traditions of English scholarship, the scheme is of the nature of a compromise, and in most cases considerable latitude of usage is to be allowed.

(1) All Greek proper names should be transliterated into the Latin alphabet according to the practice of educated Romans of the Augustan age. Thus κ should be represented by *c*, the vowels and diphthongs *υ*, *αι*, *οι*, *ου* by *y*, *ae*, *oe*, and *u* respectively, final *-ος* and *-ου* by *-us* and *-um*, and *-πος* by *-er*.

But in the case of the diphthong *ει*, it is felt that *ei* is more suitable than *e* or *i*, although in names like *Laodicea Alexandria*, where they are consecrated by usage, *e* or *i* should be preserved, also words ending in *-ειον* must be represented by *-eum*.

A certain amount of discretion must be allowed in using the *o* terminations, especially where the Latin usage itself varies or prefers the *o* form, as *Delos*. Similarly Latin usage should be followed as far as possible in *-e* and *-a* terminations. e.g., *Priene Smyrna*. In some of the more obscure names ending in *-πος*, as *Λέαγρος*, *-er* should be avoided, as likely to lead to confusion. The Greek form *-ον* is to be preferred to *-o* for names like *Dion*, *Hieron*, except in a name so common as *Apollo*, where it would be pedantic.

Names which have acquired a definite English form, such as *Corinth*, *Athens*, should of course not be otherwise represented. It is hardly necessary to point out that forms like *Hercules*, *Mercury*, *Minerva*, should not be used for *Heracles*, *Hermes*, and *Athena*.

(2) Although names of the gods should be transliterated in the same way as other proper names, names of personifications and epithets such as *Nike*, *Homonoia*, *Hyakinthios*, should fall under § 4.

(3) In no case should accents, especially the circumflex, be written over vowels to show quantity.

(4) In the case of Greek words other than proper names, used as names of personifications or technical terms, the Greek form should be transliterated letter for letter, *k* being used for *κ*, *ch* for *χ*, but *y* and *u* being substituted for *υ* and *ου*, which are misleading in English, e.g., *Nike*, *apoxyomenos*, *diadumenos*, *rhyton*.

This rule should not be rigidly enforced in the case of Greek words in common English use, such as *aegis*, *symposium*. It is also necessary to preserve the use of *ou* for *ου* in a certain number of words in which it has become almost universal, such as *boule*, *gerousia*.

(5) The Acting Editorial Committee are authorised to correct all MSS. and proofs in accordance with this scheme, except in the case of a special protest from a contributor. All contributors, therefore, who object on principle to the system approved by the Council, are requested to inform the Editors of the fact when forwarding contributions to the Journal.

In addition to the above system of transliteration, contributors to the *Journal of Hellenic Studies* are requested, so far as possible, to adhere to the following conventions:—

Quotations from Ancient and Modern Authorities.

Names of authors should not be underlined; titles of books, articles, periodicals, or other collective publications should be underlined (for italics). If the title of an article is quoted as well as the publication in which it is contained, the latter should be bracketed. Thus:

Six, *Jahrb.* xviii. 1903, p. 34,

or—

Six, *Protophenes* (*Jahrb.* xviii. 1903), p. 34.

But as a rule the shorter form of citation is to be preferred.

The number of the edition, when necessary, should be indicated by a small figure above the line; e.g. Dittenb. *Syll.*² 123.

Titles of Periodical and Collective Publications.

The following abbreviations are suggested, as already in more or less general use. In other cases, no abbreviation which is not readily identified should be employed.

- A.-E.M.* = Archäologisch-epigraphische Mitteilungen.
Ann. d. I. = Annali dell' Instituto.
Arch. Anz. = Archäologischer Anzeiger (Beiblatt zum Jahrbuch).
Arch. Zeit. = Archäologische Zeitung.
Ath. Mitt. = Mitteilungen des Deutschen Arch. Inst., Athenische Abteilung.
Baumeister = Baumeister, Denkmäler des klassischen Altertums.
B.C.H. = Bulletin de Correspondance Hellénique.
Berl. Vas. = Furtwängler, Beschreibung der Vasensammlung zu Berlin.
B.M. Bronzes = British Museum Catalogue of Bronzes.
B.M.C. = British Museum Catalogue of Greek Coins.
B.M. Inscr. = Greek Inscriptions in the British Museum.
B.M. Sculpt. = British Museum Catalogue of Sculpture.
B.M. Terracottas = British Museum Catalogue of Terracottas.
B.M. Vases = British Museum Catalogue of Vases, 1893, etc.
B.S.A. = Annual of the British School at Athens.
B.S.R. = Papers of the British School at Rome.
Bull. d. I. = Bullettino dell' Instituto.
Busolt = Busolt, Griechische Geschichte.
C.I.G. = Corpus Inscriptionum Graecarum.
C.I.L. = Corpus Inscriptionum Latinarum.
Cl. Rev. = Classical Review.
C.R. Acad. Inscr. = Comptes rendus de l'Académie des Inscriptions.
C.R. St. Pétr. = Compte rendu de la Commission de St. Pétersbourg.
Dar.-Sagl. = Daremberg-Saglio, Dictionnaire des Antiquités.
Dittenb. O.G.I. = Dittenberger, Orientis Graeci Inscriptiones Selectae.
Dittenb. Syll. = Dittenberger, Sylloge Inscriptionum Graecarum.
Ep. 'Apχ. = 'Εφημερίς 'Αρχαιολογική.
G.D.I. = Collitz, Sammlung der Griechischen Dialekt-Inscripfen.
Gerh. A.V. = Gerhard, Auserlesene Vasenbilder.
G.G.A. = Göttingische Gelehrte Anzeigen.
Head, H.N. = Head, Historia Numorum.
I.G. = Inscriptiones Graecae.¹
I.G.A. = Röhl, Inscriptiones Graecae Antiquissimae.
Jahrb. = Jahrbuch des Deu.
Jahresh. = Jahreshefte des Institutes.
J.H.S. = Journal of Hellenic Studies.
Klio = Klio (Beiträge zur alten Geschichte).
Le Bas-Wadd. = Le Bas-Waddington, Voyage Archéologique.
Michel = Michel, Recueil d'Inscriptions grecques.
Mon. d. I. = Monumenti dell' Instituto.
Müller-Wies. = Müller-Wieseler, Denkmäler der alten Kunst.
Mus. Marbles = Collection of Ancient Marbles in the British Museum.
Neue Jahrb. kl. Alt. = Neue Jahrbücher für das klassische Altertum.
Neue Jahrb. Phil. = Neue Jahrbücher für Philologie.

¹ The attention of contributors is called to the fact that the titles of the volumes of the second issue of the Corpus of Greek Inscriptions, published by the Prussian Academy, have now been changed as follows:—

<i>I.G.</i>	I.	= Inscr. Atticae anno Euclidis vetustiores.
"	II.	= " " aetatis quae est inter Eucl. ann. et Augusti tempora
"	III.	= " " aetatis Romanae.
"	IV.	= " Argolidis.
"	VII.	= " Megaridis et Boeotiae.
"	IX.	= " Graeciae Septentrionalis.
"	XII.	= " insul. Maris Aegaei praeter Delum.
"	XIV.	= Italiae et Siciliae.

Niese = Niese, Geschichte der griechischen u. makedonischen Staaten.

Num. Chr. = Numismatic Chronicle.

Num. Zeit. = Numismatische Zeitschrift.

Pauly-Wissowa = Pauly-Wissowa, Real-Encyclopädie der classischen Altertumswissenschaft.

Philol. = Philologus.

Ramsay, *C. B.* = Ramsay, Cities and Bishoprics of Phrygia.

Ramsay, *Hist. Geog.* = Ramsay, Historical Geography of Asia Minor.

Reinach, *Rép. Sculpt.* = S. Reinach, Répertoire des Sculptures.

Reinach, *Rép. Vases* = S. Reinach, Répertoire des Vases peints.

Rev. Arch. = Revue Archéologique.

Rev. Ét. Gr. = Revue des Études Grecques.

Rev. Num. = Revue Numismatique.

Rev. Philol. = Revue de Philologie.

Rh. Mus. = Rheinisches Museum.

Röm. Mitt. = Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung.

Roscher = Roscher, Lexicon der Mythologie.

S. M. C. = Sparta Museum Catalogue.

T. A. M. = Tituli Asiae Minoris.

Z. f. N. = Zeitschrift für Numismatik.

Transliteration of Inscriptions.

[] Square brackets to indicate additions, *i.e.* a lacuna filled by conjecture.

() Curved brackets to indicate alterations, *i.e.* (1) the resolution of an abbreviation or symbol; (2) letters misrepresented by the engraver; (3) letters wrongly omitted by the engraver; (4) mistakes of the copyist.

< > Angular brackets to indicate omissions, *i.e.* to enclose superfluous letters appearing on the original.

. . . Dots to represent an unfilled lacuna when the exact number of missing letters is known.

- - - Dashes for the same purpose, when the number of missing letters is not known.

Uncertain letters should have dots under them.

Where the original has iota adscript, it should be reproduced in that form; otherwise it should be supplied as subscript.

The aspirate, if it appears in the original, should be represented by a special sign, [†].

Quotations from MSS. and Literary Texts.

The same conventions should be employed for this purpose as for inscriptions, with the following *important exceptions*:—

() Curved brackets to indicate only the resolution of an abbreviation or symbol.

[[]] Double square brackets to enclose superfluous letters appearing on the original.

< > Angular brackets to enclose letters supplying an omission in the original.

The Editors desire to impress upon contributors the necessity of clearly and accurately indicating accents and breathings, as the neglect of this precaution adds very considerably to the cost of production of the *Journal*.

RHESOS OF THRACE.

ACROSS the fascinating, if somewhat flamboyant, pictures of the *Doloneia* there shoots a meteor like Goethe's *Sternschuppe* :—

Aus der Höhe schoss ich her
Im Stern- und Feuerscheine,
Liege nun im Grase quer :
Wer hilft mir auf die Beine ?

Rhesos appears in shining armour—or rather, we are told that he appears, for we never see him or hear him. We learn only that on the very night of his entry into the Trojan ranks he is slain in his sleep without a blow. His entry has not been prepared, his exit is forgotten; there is no word of him before or after the tenth book of the *Iliad*.

He can, indeed, hardly be called a person at all. He is a suit of armour labelled with a name, no more. He comes from 'Thrace'—a sufficiently vague term, meaning no more than 'the north.' He has a father Eioneus, 'Shoreman.'¹ But he has not even a city. He is located nowhere in the wide stretch of shore between the Pontic Sea and the mouth of the Axios. The western part of this region is indeed to Homer the country of the Paionians and Kikones; the Thracians are, it would seem, confined to the eastern part, just north of the Hellespont: the only

¹ 'Ἠϊονεύς is a stock name in mythology. In Homer it is given to an otherwise unknown Greek in *Il.* vii. 11: to a grandson of Aiolos in Paus. vi. 21, 11: to a son of Proteus, grandfather of Hekabe, in Pherekydes ap. schol. Eur. *Hec.* 3: to the father of Dia wife of Ixion, in schol. Ap. Rhod. iii. 62. There is thus little ground for connecting it with the Strymon, because there was at the mouth of the river a town 'Ἠϊών. That is merely the name given by Greek traders to the 'beach' at which they traded before Amphipolis was founded. There were indeed two other places so called in

Thrace and Macedonia, according to Eustathios and Steph. Byz. The name is little more than the modern 'Scala.' Thus when Konon says that 'Ἠϊονεύς was the ancient name of the Strymon, we must needs be incredulous; the assertion is patently a conjecture to reconcile the genealogy of Homer with that of the *Rhesus*. Had there been any ground for so interesting and important an identification, we should certainly have heard of it from some of the reputable authors who dealt with Greek geography and genealogy

Thracian town of which we hear is Ainos. So far then as Rhesos can be given a Homeric home, it must be somewhere in the Hebros valley.² In his case the question *πόθι τοι πόλις ἥδὲ τοκῆς* is at best half answered; Rhesos is a drifting shadow unplaced, cut off from all local ties, without any bonds to cult or myth. Of divine parentage there is no hint; he is a man so far as he has any real existence. In short, he proclaims himself a poetic fiction, created only for the purpose of supplying an effective object for the night attack of Diomedes and Odysseus. Indeed it might even be said that it is not he, but his white Thracian steeds, which take the first place; he is there only to introduce them and his Thracian panoply. He is called a Thracian only because Thrace was famed for white horses and armour.

This vagueness of outline, this emptiness of content, is evidently the cause of the neglect which, one notable exception apart, was his fate in subsequent literature. Why he should have been made the central figure in the enigmatical Attic tragedy named after him is the main problem with which we have hereafter to deal. If we leave it out of sight for the moment, the only appearances of Rhesos in Greek literature, so far as I know, date from long subsequent days. The romancer Parthenios devotes the last chapter of his work to the tale of the wooing of the huntress maiden Arganthonē of Kios in Bithynia by Rhesos, 'before he went to Troy.'³ It is a simple love-story which might have been told of any pair. In Philostratos⁴ he appears in a totally different light. He is a sort of wild huntsman on Rhodope; the wild beasts come to his hero-shrine to offer themselves in willing sacrifice.

The thing that strikes one about all these stories is the absence of any common bond of locality or legend. In the drama the home of Rhesos, vaguely defined by Homer as Thrace, is on the banks of the Strymon, which to Homer is probably in the land not of the Thracians but the Paionians. In Parthenios he is brought to Bithynia; the locality is fixed by the name of the maiden Arganthonē, derived from Mount Arganthonios over Kios. His presence there is explained by his travels in many countries 'in collecting tribute,' and in particular by the reputation of the beautiful huntress, a local Atalanta. In Philostratos we are taken back to Thrace, but to Rhodope, not to the Strymon.

The legendary element of the story varies no less. The play abandons the parentage ascribed to Rhesos by Homer; his father is no longer Eioneus, but the river-god Strymon; and he is moreover provided with a divine mother in 'the Muse.'⁵ Parthenios knows nothing of any divine parentage:

² Hipponax, fr. 39 (42) actually names Ainos as his home:

ἐπ' ἀρμάτων τε καὶ Θρηϊκίων πάλων
λευκῶν ἰὼν κατ' ἐγγὺς Ἰλίου πύργων
ἀπηναρίσθη Ῥῆσος Αἰνίων πάλμυς.

(MS. Αἰνειῶν, corr. Brink.) Cf. *Troy*, p. 271. So in Serv. on *Aen.* i. 469 he is made the son

of the Hebros.

³ Parth. 36 (*Erotici Gr.*, Teubner ed., p. 32).

⁴ *Her.* 681.

⁵ That there was no fixed tradition about his mother appears from the choice given by later authors between Terpsichore, Kleio, Kalliope and Euterpe; Roscher, *Lex.* iv. pp. 106-7.

the lovers are both human. In Philostratos the Homeric story is entirely abandoned, and Rhesos has taken on the character of saga.

The natural conclusion is that the Rhesos of the *Doloneia* is a purely literary creation of the moment, devoid of local or legendary background. The slightness of the outline accounts for the small impression which this fictitious character produced on later literature: the person of Rhesos was brought upon the Attic stage for some special reason, but was treated with complete freedom from any ties of legend, and elsewhere forgotten, till the late romance writers, foraging in the records of the past, took him as a peg on which to hang unappropriated stories.

There is not even any ground for supposing, as some have done, that Rhesos is a genuine Thracian name. The sole ground for such a supposition is the appearance in Philostratos of a distinct Rhesos-saga. That evidence is too late and untrustworthy for any conclusions; it is not confirmed by the only recurrence of the name as that of a river in the Troad.⁶ And to suppose that Rhesos is a Thracian word for 'king,' connected with *rex*, seems a curious recrudescence of pre-scientific etymology.

This modest and natural view of Rhesos naturally does not suit the mythologist. He starts with the maxim—quite unproved, and no more than a guess—that every Greek hero, and therefore Rhesos, is a 'faded god.' We are not therefore surprised to find that so eminent a scholar as Erwin Rohde has a great deal to tell us about Rhesos.⁷ He is, it appears, 'a tribal god (Stammgott) of the Edonians, of the same type as the Zalmoxis of the Getai, the Sabos or Sabazios of other Thracian stems.' 'The district at the mouth of the Strymon, on the western slopes of Pangaios, is the old home of Rhesos . . . He dwells on Pangaios as an oracular god.' This theory seems to have been accepted as a matter of course by subsequent writers of the same school;⁸ yet it is eminently worth a closer examination.

It is not often that we can bring the faded god to book by direct evidence; he is generally no more than a precarious deduction from unwarranted assumptions. In the case of Rhesos, as it happens, we have such direct evidence; and it contradicts Dr. Rohde in the most emphatic way. It is the evidence of an expert in religion who, though he never had the advantage of sitting at the feet of Prof. Usener, had access to evidence far more abundant than can be at the disposal of the most learned of modern scholars. It is not an *obiter dictum*, but the deliberate judgment of a man who is carefully considering the very point at issue.

Cicero, in his treatise on theology, discusses the conditions which led to the deification of heroes. It is not enough, he says, that the hero should be of divine parentage; though Achilles, for instance, is in Astypalaea worshipped as a god, it is not because he is son of a goddess. For there are other heroes who are equally sons of goddesses, yet are not worshipped. And as instances he quotes—Orpheus and Rhesos. They are both children

⁶ *Il.* xii. 20.

⁷ *Psyche*, p. 151, note 2.

⁸ *E.g.* Bethe *s.v.* 'Diomedes' in Pauly-Wissowa, v. 818; Pfister, *Reliquienkult.* p. 198.

of goddesses, yet neither of them enjoys divine worship.⁹ Could there be more explicit evidence?

'Perhaps they were not so worshipped in Cicero's day,' Rohde somewhat feebly argues: 'but that is no evidence for earlier times.' He appears to forget that Cicero is speaking generally—that he represents the learning of his day, not his own personal knowledge. 'They are not worshipped anywhere' means that the Alexandrine theologians who had collected the materials on which he bases his assertions knew of no instance of the worship of Rhesos; and that takes us back at least to the fifth century B.C.; so far at least Alexandrian evidence could go. And this, on any assumption, covers the tragedy of Rhesos. We are safe in concluding from Cicero's words not only that the Alexandrines knew of no worship of Rhesos, but that they did not consider the tragedy as evidence of such worship.

This brings us to the gist of the problem, the evidence on which Rohde founds his theory, the theophany of the tragedy of *Rhesus* attributed to Euripides. It will be worth while to give an abstract of the whole scene, 890–996.

The Muse appears, wailing over the body of her dead son Rhesos, and cursing Diomedes and Odysseus who have slain him by stealth. It is the son of Philammon, Thamyris, who has been the cause of her grief; for it was on her way to the famous contest where, with her sister-Muses, she outsang Thamyris and blinded his eyes, that she fell in with the river-god Strymon, and, yielding to his wooing, became the mother of Rhesos. She gave the babe to his father, who in turn entrusted him to the river-nymphs; Rhesos grew up to be king of Thrace. She foresaw disaster if Rhesos should go to Troy, but he had yielded to the prayers of Hector, and so had met his death. 'And of all this woe,' she continues, 'Athena is guilty. It was not the doing of Odysseus or Diomedes; do not think that I am deluded. And yet, Athena, it is thy city which we sister-Muses honour above all; we haunt the place, and Orpheus, the cousin of him whom thou hast slain, is he who displayed the torches of the hidden mysteries; it was Phoibos and we, his kindred band, who equipped thy revered citizen Musaios, so that he should pass in solitary grandeur to the foremost place of men. And my recompense for all this is that I have to mourn over the dead body of my son. I am content with Musaios as my advocate, and need call in no other skilled pleader to speak on my behalf.'¹⁰

Here the chorus interrupt to express their satisfaction at learning that the death of Rhesos was not due to Hector; and Hector, after

⁹ Itaque Achillen Astypalaeenses insulani sanctissime colunt. Qui si deus est, et Orpheus et Rhesus dii sunt, Musa matre nati: nisi forte maritimae nuptiae terrenis anteponuntur. Si hi dii non sunt, quia nusquam coluntur, quo modo illi sunt? Vide igitur ne uirtutibus hominum isti honores habeantur, non immor-

talitibus.—*De Nat. D.* iii. 45.

¹⁰ This I take to be the meaning of the last clause, σοφιστήν δ' ἄλλον οὐκ ἐπάγομαι. I cannot help fancying that it contains an allusion to debates in the Assembly at Athens on the Amphipolis question.

acknowledgment, expresses his intention of preparing a tomb for Rhesos and burning with the body a wealth of raiment.

The Muse answers, 'He shall not pass beneath the earth; I will at least ask Persephone, daughter of Demeter, to send his soul up again. She owes me a debt, she is bound to honour the friends of Orpheus. For me, indeed, he will be henceforth as one that is dead and sees not the light; for never will he come where I am, nor behold his mother's face. But he shall lie hidden in caves of the silver land, a spirit-man (*ἀνθρωποδαίμων*) beholding the light, even as the spokesman of Bacchos came to dwell in Pangaïos' rock, a god venerable to those who know.' The speech ends with a prophecy of Achilles' death, which is soon to happen.

This remarkable passage is so full of matter that one hardly knows where to begin. But we may first point out that, far from supporting Rohde and his Stammgott, it decisively contradicts him. The home of Rhesos is not on Pangaïos at all; he is a stranger there. Pangaïos is the home of Bacchos. A spokesman (*προφήτης*) of Bacchos has already come there to dwell with the god; Rhesos shall do the same. Rhesos is in fact a new-comer in the second degree. And he is not to be a god; on the contrary, his godhead is denied in double fashion. First by the curious and unique compound *ἀνθρωποδαίμων*, which seems purposely designed to exclude the divine. The simple *δαίμων* might imply godhead; any such implication is effectively excluded by the addition of the manhood in the emphatic place. And secondly by the words used of his predecessor the 'spokesman.' The *προφήτης* is a subordinate of Bacchos. He is indeed recognized as a god by 'those who know,' those who are initiated in the mysteries; but the outer world remains in ignorance. Yet even this modified divinity is not allowed to Rhesos. If he is indeed a Stammgott of the Edonians, he is most mercilessly degraded from his honours, and the statement of Cicero receives complete confirmation.¹¹

Let us now turn to the passage as a whole. One thing at least is clear; the plain intention is to bring the city of Athens into intimate connexion with Rhesos. The whole blame of Rhesos' death is laid upon the goddess, and through her on her citizens. Athens is partner in an evil deed for which reparation is due, in mere gratitude for all that the Muses have done for Athens. And the connexion is made through one quite special link—the relation of Orpheus to the Eleusinian Mysteries. It must have seemed at first sight almost impossible to connect the Thracian Rhesos of Homer with the city; the manner in which it is effected is highly ingenious.

It is a certain fact that Orphism had, early in the fifth century or

¹¹ Possibly Rohde is one of those who read ὥστε for ἵστε in 972 (*Βάκχου προφήτης ὥστε Παγγαίου πέτρῃν ὤκησε σεμνὸς τοῖσιν εἰδόσιν θεός*), thus identifying the spokesman with

Rhesos himself. This seems to me impossible, not on any grammatical ground, but because the aorist *ὤκησε* is dramatically unthinkable as part of the prophecy.

not long before it, been formally adopted into the Dionysos-Demeter cycle of mysteries, to which it was originally strange.¹² Orpheus had 'displayed the torches,' *φανὰς ἔδειξε*, of Bacchos at Eleusis; this implies that he had also been taken into partnership with Bacchos at headquarters, at the Mount Pangaios whence the Bacchic worship had so widely radiated. That Orpheus is in fact the *Βάκχου προφήτης* who went to live on Pangaios, as Maass has argued, seems to me to be beyond all reasonable doubt. It follows from the whole tenor of the passage, and any other interpretation would be of necessity unintelligible.¹³

We have then reached this point; that the city of Athens is under an obligation, resting on the most elementary considerations of gratitude, to repair a great wrong done to the Muses. The reparation required is that Rhesos shall be taken back to his home on the banks of his father's river, the Strymon; there he is to be honoured much as Orpheus is honoured, though hardly with so high a rank. The means by which this is to be done is through the goddess of the Eleusinian Mysteries. Persephone, owing the Muses a debt for the aid which Orpheus has given at Eleusis, will be willing to give up the soul of Rhesos for the purpose. This is put in the form first of a strong statement of the obligation, then of a prophecy that the restitution will be made. And the prophecy received in fact such a striking fulfilment that we are quite safe in saying that it was composed after the event.

Greece had early in the fifth century begun to cast longing eyes on the mouth of the Strymon, the gate into the rich plains and richer mines of eastern Macedonia and their potentialities of wealth. But the land was held by the powerful and independent tribe of the Edonians, and two attempts to found a colony there had already failed disastrously before the attacks of the warlike natives. The first had come from Miletos in 497, the second was a combination under Athenian leadership in 465-4.¹⁴ The third and successful attempt was made by the Athenians, under the leading of Hagnon in 437; and the city of Amphipolis was duly founded.

After two failures, very special religious precautions had of course to be taken; and an oracle advised that to ensure proper protection from the other world the bones of Rhesos should be brought and duly installed in the new colony. Among the graves which were shown by the *ciceroni* of Troy was, of course, that of Rhesos. An expedition was accordingly sent which broke into this grave by night, embarked the bones there found, and carried them to Amphipolis. In the heart of the new town Rhesos was buried in a hero's tomb, and no doubt worshipped with the

¹² See Miss Harrison, *Prolegomena*, ch. v.

¹³ It seems to me beside the question to argue against Maass, as Perdrizet does, on questions of local Pangaian mythology and geography. I do not see the least ground for supposing that the author of the *Rhesus* knew

anything about such matters; that Orpheus went to live at Pangaios only means that he was adopted into the Dionysiac system at a place which for the particular purpose is highly convenient.

¹⁴ Thuc. iv. 102; Herod. vii. 114.

usual heroic rites. Opposite his tomb, we are told, was a shrine of his mother the Muse, later identified with Klio.¹⁵

The story comes from a late author, Polyainos,¹⁶ and one who is no trustworthy historian; but in this case, as Rohde himself says, there is not the least reason for doubting it. The oracles in the fifth century were fond of giving orders for the transference of the bones of heroes to their native places, in order to assure their protection. There is one certainly datable case in which the Athenians themselves had been concerned only a short time before. An oracle directed in 476 that the bones of Theseus should be brought from Skyros and solemnly laid in the Theseion. The action had been a brilliant success; Athens had rapidly risen to the height of her power. But if the oracle had to find, and to recommend to Athens, a Thracian hero who had died away from his own land, and whose grave was known so that his bones could be repatriated, it would seem that the choice was singularly limited. Thrace was at this time very little known at Athens; no Thracian heroes, so far as we know, had played a part in Greek history, save in the Trojan War. And even here there were but few. Asteropaios would not serve, for he was son of the river Axios, so it was not possible to pretend that his home was on the Strymon, where the new colony was to be founded. Peiroos, one of the leaders of the Thracians in the Trojan Catalogue, was from Ainos, too far east, even if he was important enough to have his tomb still shown at Troy. Euphemos, captain of the Kikones, might have served; but he was too insignificant, and it is not even said that he went through the necessary formula of being slain. We are in fact reduced to Rhesos or nobody. Rhesos came from Thrace; the name is vague enough; why not make him the son of the river Strymon? Homer says, indeed, that he is son of Eioneus; but it is only respectable for the son of a river-god to have a human father¹⁷ as well. The Homeric paternity can easily be recognized in the name of Eion, the sea-side town which will serve as the port of Amphipolis. The tomb of Rhesos is one of the sights of Troy, and no one claims him elsewhere; so let Rhesos be the patron of the settlement, and let his bones

¹⁵ Marsyas ap. schol. Eur. *Rhes.* 347.

¹⁶ *Strat.* vi. 53. I quote the whole passage, so far as it refers to Rhesos. "Ἀγνων Ἀττικὴν ἀποικίαν ἤγαγεν οἰκίσαι βουλόμενος τὰς καλουμένας Ἑνεία ὁδοὺς ἐπὶ τῷ Στρυμόνι· ἦν γὰρ καὶ λόγιον Ἀθηναίοις τοιοῦνδε·

τίπτε νέως (?) κτίσσαι πολὺπον μενεαίνετε
χώρον,
κοῦροι Ἀθηναίων; χαλεπὸν δὲ θεῶν ἄτερ ὕμνιν.
οὐ γὰρ θέσφατόν ἐστι, πρὶν ἂν κομίσῃτ' ἀπὸ
Τροίης

Ῥήσου ἀνευρόντες καλὰ μιν πατρίδι δέ τ' ἀρούρηι
κρύψῃτ' εὐαγέως· τότε δ' ἂν τότε κῦδος ἔροισθε.

ταῦτα τοῦ θεοῦ χρῆσαντος ὁ στρατηγὸς Ἀγνων ἐς
Τροίην ἔπεμψεν ἄνδρας οἱ τὸ Ῥήσου σῆμα νύκτωρ

ἀνορύξαντες ἀνείλοντο τὰ ὀστέα· καὶ καταθέντες τὰ
ὀστέα ἐς χλαμύδα πορφυρᾶν κομίζουσιν ἐπὶ τὸν
Στρυμόνα· οἱ μὲν δὲ κατέχοντες βάρβαροι τὴν
χώραν διαβαίνειν τὸν ποταμὸν ἐκώλυον, Ἀγνων δὲ
σπονδὰς ποιησάμενος τρεῖς ἡμέρας ἀπέπεμψε τοὺς
βαρβάρους καὶ διὰ τῆς νυκτὸς τὸν Στρυμόνα μετὰ
τοῦ στρατεύματος διελθὼν τά τε ὀστέα τοῦ Ῥήσου
κατάρυξε παρὰ τὸν ποταμὸν καὶ τὸ χωρίον ἀποτα-
φρεύσας ἐτείχιζε πρὸς τὴν σελήνην, ἡμέρας δὲ
οὐκ εἰργάζοντο. Rohde, followed by Jessen in
Roscher's *Lexikon*, thinks that though the
narrative is true, the details may be 'fabelhaft
ausgeschmückt.' I should have thought the
story was matter-of-fact and bald enough to
suit the austere taste.

¹⁷ See *IL.* xvi. 174-178.

be taken there to ensure the presence of the hero-spirit. There is not the least reason for supposing that the Edonians had ever heard of Rhesos—indeed it is extremely unlikely that they had. If he is not, as seems probable, a creation of the fertile brain of the author of the *Doloneia*, he may possibly have been, on the high authority of Philostratos, a name from Eastern Thrace, or, if we prefer the romancer Parthenios, from Bithynia. That he was a tribal god is the fancy of another and more modern romancer.

We are now in a position which enables us to draw the natural, and to me inevitable, conclusion. The tragedy of *Rhesus* was a *pièce d'occasion*; and the occasion was the founding of Amphipolis. It is a political piece, intended to encourage the expedition. The *Rhesus* was written in the year 437, or very near it.

A poet does not go out of his way to accuse his own city and its revered goddess of base ingratitude for favours received unless he has some very special grounds. The process by which the charge is manufactured is very elaborate and artificial. It is not easy at first sight to see how such an accusation can be founded on the killing of Rhesos as described in the *Iliad*. Athena takes part in it, but it is no reproach to her that she should help in the slaying of an enemy who is actually at war with her own Greeks. But the poet is equal to the occasion. He provides the necessary link by making Rhesos the son of 'the Muse.' For this, so far as we can tell, he had no authority in legend; the whole story proclaims itself as poetic fiction.

The Muses lived not in Thrace but in Pieria. But there was a good precedent, in the case of Orpheus, for making a Thracian son of a Muse. The poet sets about bringing the Muses to Thrace, and for this purpose employs the story of Thamyris, transplanting it from the Peloponnesos, where the Catalogue of the Greek ships had placed it, to Thamyris' home—the author of the *Boeotia* knew that Thamyris was a Thracian.¹⁸ The Muses on their way thither from Pieria are bound to cross the Strymon; the tale of the divine paternity of Rhesos is invented, and he is fixed to the neighbourhood of Amphipolis.

When this is done, the next step, though not very convincing, is easy. Rhesos, the son of the Muse, is first cousin (*ἀνταρψιός*) to Orpheus; and Orpheus has been adopted into the Eleusinian Mysteries; that is, he has been adopted by Athens.¹⁹ Or rather, the Muses have adopted Athens, and conferred upon that favoured city all the glory of the highest mysteries—above all, the glory of Musaios, the Muses' Man, who is to the mystic the type of mankind exalted to spiritual heights beyond all his fellows. And the reward of all this unspeakable grace to Athens is that Athens, in the person of her patron goddess, ingloriously slays, by treacherous

¹⁸ *Il.* ii. 595.

¹⁹ This was a comparatively recent achievement, and fresh in men's minds; it had prob-

ably taken place under the Peisistratidai.
—Miss Harrison, *Prolegomena*, p. 473.

guile, the beloved son of one of the kindly sisterhood. Can there be a more base ingratitude?

All this elaborate fiction has been invented in order that an injurious and wholly gratuitous attack may be made on the national honour of Athens and her goddess. That sort of thing is not done unless the solution is patent to every hearer. And in this case the solution is clear. The apparent attack is made in order to lay a solemn obligation on the Athenian state. If they have done the wrong, it is their business to repair it; and that is a thing to say at the moment when the reparation is actually being made.

It is not likely that the Athenians or any Greeks of the time felt much compunction at renewing their attacks on a gallant and independent people in order to possess themselves of valuable silver mines; still a religious sanction would not be out of place there, as it has been found useful under similar circumstances at later periods in history—by the Spaniards in America, for instance, not to deal with later events. But there was the story of the body-snatching by night at Troy. That was not a very pretty story at first sight; but it takes on an entirely different aspect when we learn that it is really done by divine order. The earth has given up its dead because the Muse has asked her friend Persephone in Attica to yield up the soul of the hero, which goes of course with his bones. The whole transaction is placed under the divinities of the mystic circle, now combined into one—Demeter, Bacchos, Orpheus. The recent admission of Orpheus is made a reason for hinting that Rhesos himself may be admitted into the holy corporation; at all events he is being taken into the region of Pangaïos, where Orpheus has lately been adopted. The newcomer may hope for an elevation like that of his cousin, though indeed this is barely hinted at. All that is promised is what is certainly possible for the state; he will dwell in a cave, an *ἀντρον*, like any other hero; and like any other hero duly worshipped, though he is beneath the earth, he will be kept in a sort of life, 'seeing the light,' by the due heroic sacrifices, the food and drink poured down through a hole upon his resting place. But he will certainly never be received among the gods; to his goddess-mother he will be as dead:—

κάμοι μὲν ὡς θανῶν τε κοῦ λεύσσω φάος
ἔσται τὸ λοιπόν· οὐ γὰρ ἐς ταῦτόν ποτε
οὔτ' εἰσιν οὔτε μητρὸς ὄψεται δέμας.

How could any sort of post mortem divinity be denied in stronger terms? 'He will never come to the place' where the gods are, nor can even a goddess go to him.

I have said that the *Rhesus* must have been written in 437. Perhaps a little latitude must be allowed. But it is clear that it cannot have been written after the surrender of Amphipolis to Brasidas in 424. One thing is quite certain—that no Athenian could have witnessed the *Rhesus* after that date without intolerable feelings of shame and humiliation.

The reference, even if not intentional, was too obvious to escape the notice of the dullest patriot; and one would not be surprised if we were told that the author of the play had, after that great national disaster, done his best to disclaim the words in which he had so boldly asserted the divine favour under which the ill-starred exploit was carried out.

But it is not impossible that the play may have been written a little before 437. We are told that the oracle under which the bones of Theseus were taken from Skyros to Athens was given in 476; the actual conquest of the island and repatriation of the bones seems to have been effected only seven years later, in 469 or 468.²⁰ Possibly an interval may have occurred here also. Clearly the play cannot have been written before the oracle was given; but so large an expedition must have demanded long and careful preparation, and it is only due to the credit of the Athenian state to suppose that they negotiated for the voluntary return of the bones by the Trojan authorities before they had resort to the discreditable and sacrilegious step of breaking open the tomb by night. The play may well have been composed in preparation for the actual events of 437, and in order to give a religious gloss to these negotiations.

This conclusion of course is quite consistent with the theory that the *Rhesus* is an early play of Euripides: but it cannot be a youthful, and hardly even an immature, play. If it was written in 437, it is only a year later than the *Alcestis*, the earliest survivor; it is quite possible that it may be two or three years earlier, but hardly more. And the circumstances of its composition may go far to explain the peculiarities of its style and construction.

It is a play written for a special purpose, and the materials are very limited. Rhesos is one of the late comers into the Epos, and it is clear that his name had never been taken up by the popular myth-makers who, in every other case known to us, had transmuted the Homeric tales into the form, often distorted, which the Tragedians found most suited for their purpose. The author of the *Rhesus* has no source for his story save Homer and his own imagination. He is strictly limited by Homer till he reaches his theophany; then he is quite unrestricted. These are conditions unknown elsewhere. And he is working under strictly hieratic influence—he has to appear as a champion of the Mysteries in their most official and conventional aspect—to represent them as guiding infallibly a piece of state policy. One can hardly imagine Euripides writing quite like himself under these limitations.²¹ But these considerations I leave to the experts in tragedy to decide.

One point, however—to return to the theme with which I began—I hope to have made out; that there is no foundation whatever in the theophany of the *Rhesus* for the idea of Rhesos as a tribal god of the

²⁰ Frazer, *Paus.* vol. ii. p. 164.

²¹ Miss Harrison reminds me that Euripides had an ancestral interest in mystic rites; he

was born at Phlya, which had curious Orphic mysteries of its own. See her *Prolegomena*, Pref. p. xii. and 641-646.

Edonians. The evidence points conclusively in the other direction. He was a hero brought to the Strymon in the year 437 for a special purpose, and it must be added that he was a complete failure. Curiously enough, though we do hear one thing about the local worship of Amphipolis, Rhesos is not concerned in it. On the death of Brasidas the Amphipolitans transferred to him the rites paid to Hagnon as the founder of the city.²² Probably that was the end of any regard to the discredited hero of the *Doloneia*. His honours lasted for thirteen years, and it was true, for four centuries before Cicero said it, that 'he is nowhere worshipped.' He was probably never taken very seriously even by the Athenians; and when they had no further interest in him, the less said about him the better.

WALTER LEAF.

²² Thuc. v. 11.

ANCIENT FLUTES FROM EGYPT.

IN examining and dealing with the fragments of some Flutes found by Professor Garstang during his excavations at the Royal City of Meroë, about fifty miles from Khartoum in the Sûdân, a brief consideration may perhaps be permitted respecting the conditions which obtained at this old Nubian capital on the Upper Nile, so far as they appertain to a phase of music long passed away. It may aid in tracing the origin of these particular flutes, and determining whether they are of local workmanship, or imported.

Kush, an ancient kingdom comprised in Ethiopia, later became one of the dependencies of Egypt proper. From the period of the invasion of Cambyses, B.C. 530, his seizure and destruction of Thebes, the island city of Meroë, decreed by the conqueror to be the capital of the province, became a great trade emporium. Greek influence then began to obtain in the land of the Nile. Although of course the customs, arts, and learning of the more ancient Egyptians extensively prevailed among these more southern people, Meroë was a place of great importance, possessing enough rich and cultured persons to import for use and enjoyment products of art from notable places beyond the Egyptian shores of the Mediterranean.

So much is said in justification of the opinion that, however original and characteristic were the early instruments and music of the Egyptians proper, dating back quite to B.C. 3000, in later times Greece returned to the land of the Pharaohs some of the debt originally incurred with regard to the theory and practice of music when Pythagoras went there and studied the art. We know that this condition was specially the case with the later flutes, and it should be remarked that of old the term 'Flute' was applied to all instruments of the pipe family whether played with reeds, or true flue-blown. There was from time immemorial a great demand for flute music for solemn ceremonies and a number of social purposes.

The Nay, cut from the thick strong stalk of the *arundo donax*, the common water-plant of the Nile, is simply a hollow stem open from end to end, and pierced with a few finger-holes; it has been played in Egypt for thousands of years. This nay is the origin of the entire flute tribe, also of all the flue pipes of the organ; the venerable instrument is still played in Cairo. Almost as old is the Zammah in which pipe the arghool (striking) reed is inserted. It is the origin of our clarinet; when the reed is made with double sides it appertains to the oboe family. The transverse flute

came early into use; whether this is to be regarded as the true *πλαγίανλος* of the Greeks, or whether this designation referred to another type need not be critically discussed. Although few examples are extant there are specimens recovered from the ashes of Pompeii, and the British Museum presents an example obtained from Halicarnassus to which later reference will be made. Besides the statements of Herodotus, Strabo, Diodorus Siculus, Plato, Lucian, and Pliny, who tell us much about Egypt, its arts and music, a number of Greek writers describe the prowess of their native flute players. The professional *αὐληταί* and tibicines were esteemed and highly paid artists, indeed some had statues erected to them following their success in public competitions. As the instrument and its capabilities developed, many of those produced became works of constructive skill and artistic ornamentation, fetching enormous prices. Lucian says that Ismenias of Thebes gave a sum equal to a thousand pounds for a flute at Corinth. Lamia so fascinated her admirers that a temple was erected and divine honours paid to the felicitous flautist. Not only are the names of some of the renowned players preserved, but those of celebrated makers have been recorded, as that of Theodorus mentioned by Plutarch.

The four flutes discovered at Pompeii, now in the Naples Museum, arrest attention in connexion with the recent Meroë find, inasmuch as some identical features are presented, features associated with no other specimens remaining, viz., the revolving rings or broad bands for temporarily closing the finger-holes of notes not wanted in the particular piece about to be played. These Pompeian relics have an inner tube of ivory covered by a bronze exterior; the ventages number from eleven to thirteen. As we do not possess enough fingers to close all these holes (in order to obtain the fundamental or lowest note of the tube) some method of applying artificial fingers had to be contrived. The invention of such a device is ascribed by Pausanias to Pronomus, a Theban. This consists in placing over the ivory lining a number of sliding or revolving rings which could be turned round at will. The inventor claimed that by this mechanical device he could play in any of the principal modes on a single flute, instead of requiring specially constructed instruments for each particular scale. It was an ingenious thought, anticipating the spring pad key in use in to-day's wood-wind instruments; this latter mechanical device came into use in the early sixteenth century. It may be mentioned that, in the four Pompeian flutes, the intervals provided with these closing rings are not the same in all the examples; one possesses six rings. Very remarkable is a ring in one case having a second hole bored at a distance a little lower; it probably yielded an enharmonic interval of a quarter of a tone.

In setting out for inspection these Meroë fragments by ranging them on slender wooden rods fastened to a side frame, it must be understood that no attempt has been made to piece them together as they originally existed. We are not sure as to the length of this type of flute, and a glance at the diameters of the pieces will show that they belonged to different instruments of varying size. The design has been to mount the portions in a convenient

form for preservation, so that they can be readily seen and identified in the descriptive remarks which follow.

Like the Pompeian find, the materials are ivory and bronze ; although buried in the ground for 2000 years, they have to a considerable extent defied destruction. A qualitative analysis of some fragments shews that the main portion of the metal was copper, with a considerable amount of tin, and there were traces of iron, magnesium, and nickel ; probably these latter metals were impurities, and not deliberately added to the alloy. No doubt the alert makers and players had found that ivory was superior to the favoured sycamore wood, in that the moisture from the breath of the player did not cause the instrument to swell, a defect inseparable from wooden tubes. The bronze is still singularly hard ; though covered with an olive green oxide and earthy incrustations, it is quite difficult to file. The ivory is very brittle, and unless tenderly handled crumbles to a light brown dust. The bores of the ivory tube and that of the outside bronze are quite true rounds, perfect in their lathe turnings, as tested with callipers. The inner ivory, like the bronze covering, must have been made in sections in order to slip on the revolving rings, and provide a socket for the next portion to fit into. In fact the flute was made in joints just as we construct them now for convenience in carrying about. It may be observed that in putting the instrument together, by changing the position of the several pieces, it was possible to alter the disposition of the finger-holes, and so vary the order of the intervals ; the instrument might thus be arranged to suit some particular mode. Judging from the slightly conical outlet pieces preserved, the Meroë fragments indicate five instruments, but there may have been more now broken up and perished. The pieces vary from three and a half inches to under an inch in length. In several examples the round clean cut ends shew that such was the original form, strengthening the impression that each section was designed to fit on to another ; certainly the flutes were not made in one piece as were the more ancient instruments. The inner bores, still intact, are from seven-sixteenths to ten-sixteenths of an inch ; the bronze covering is of course adapted to fit the varying ivory lining.

The finger-holes are of three types, first round, measuring five-sixteenths to seven-sixteenths ; secondly, rectangular oblong, five-sixteenths long by two-sixteenths to four-sixteenths in breadth ; thirdly, in an ivory fragment a curved hole having the form of a comma stop in printing ; it is eight-sixteenths long, and three-sixteenths at the rounder head, the other end of it comes to a sharp point as the bottom of a comma. Both rectangular and round holes are not found in the same pieces. It would thus seem that there were two main types of finger-holes, but without possessing a perfect instrument for inspection, this cannot be determined, nor is it quite clear what was the distinction in effect between round and squared holes—unless the latter could be more easily half stopped to produce either large or small intervals. In old hautbois can be seen two small holes drilled parallel for the finger to close both, or only one, for chromatic intervals.

What is the chief and remarkable feature in these particular flutes is

the evidence of the revolving ring turning on the tubes; this may be identified on several of the fragments by the small pyramidal-shaped projections or lugs by which these rings could be readily turned. The rings ran loose on slightly grooved reductions made upon the surface of the ivory lining. Their office was to close the finger-hole of a note not wanted for use and foreign to the scale or mode of the piece intended to be played. When the hole in the ring and that in the ivory body of the flute corresponded, the note provided was available for the player's finger. But when he had to perform, or perhaps was actually playing in a piece in which this particular interval was not used, he turned the ring partly round, and shut off the hole; thus a finger was free to be used elsewhere. It is clear that this ingenious piece of mechanism made the flute more useful for general purposes. The action anticipated that of the slider working in an organ soundboard. When the stop controlling this is drawn, the hole in the table of the wind-chest and that of the slider coincide; on the player putting down a key, the pallet is opened and wind passes up to the super-imposed pipe. Much the same plan was adopted in the *Hydraulus* organ of the Romans.

On consideration of what has been said, and a glance at the mounted Meroë flute fragments (or photograph) the conclusion comes to must be that, thanks to the Liverpool University Institute of Archaeology, with congratulations to Professor Garstang on his successful exploration, we have obtained for England specimens of the exceedingly rare *Bombyx* flutes of the ancients.

This is not the occasion to enter into a description of the Greek scales system (modal we now term it) each of them with its individual succession of intervals; nor the development of the diatonic, chromatic, and enharmonic scales from the ancient pentatonic form. Nor to discourse on the employment of the tetrachordal method of building up a ladder of sounds in which the tonic appears in the middle of the scale, not at the bottom as with us; nor the intonation and treatment of the complex Pythagorean fourth, an interval subject to alteration. It is enough to observe that each of the Greek modes presented a character of its own incidental to the order of scalar intervals. According to the succession in which the notes were placed in their vocal music, so the design was to reproduce just those required, and no more, on the flute, when that popular instrument was used to play with and reinforce the voice. Various were the tone qualities and many were the names attached to the old Greek flutes. On sculptures and early illustrations will be noticed pipes having projections along the top. There is little doubt that these represented plugs placed in the finger-holes to stop-off notes not then needed; they could be taken out and readily replaced. It was a stroke of genius on the part of the Theban musician, circa B.C. 300, to invent the ring system and thus, as he boasted, to play on the same instrument music in the Lydian, Dorian and Phrygian modes. The rings running round the surface of the flute together with the little lug projections gave the instrument the appearance of a silkworm with its short legs; hence the designation *βόμβυξ*.

It will be asked, 'How were these flutes blown?' a question that cannot be absolutely determined. They could hardly be lip blown by the breath across the open top, as was the ancient Egyptian Nay—the diameter of the orifice appears too small for that method of sound production. The notes could have been evoked by the use of a vibrating reed put into the mouth end, or inserted sideways in the tube, as is seen in some sculptures. But there is another method of making them speak, viz., from a mouth-hole bored in the side, in fact, much as takes place now through the embouchure of the transverse flute.

It has been asserted that the side-blown flute is of comparatively modern invention, indeed that Germany of the sixteenth century is the place of its origin. Not so. On two of the splendid marble Topes in India are to be found representations of players with the side-blown flutes—*vide* Rawlinson's 'Tree and Serpent worship.' One of these monuments dates before Christ, the other early in the Christian era.

But we have still older evidence. Mr. Christopher Welch in his erudite and most valuable work on the flute tribe, *The Recorder* (1911, Froude), calls attention to an exhibit in the Room of Greek Roman Life at the British Museum. Here can be seen fragments, put together, of a flute found in a grave at Vistalik, Halicarnassus, by Sir Charles Newton during the time of the Crimean War. It is depicted and described at page 248 of Mr. Welch's book. The inner tube is of ivory with an outer casing of bronze; unfortunately little of the original remains. It seems to have been made in portions, either slid in over the ivory lining, or the sections socketed together. Impossible to say if the sections were movable the surface being throughout on one level, rings certainly could not slide up and down over the ivory; there is no indication of the convenient lugs. Towards the end is placed an ivory mouth-piece slightly raised above the body of the tube, and possessing a rounded hole by which the instrument was blown; the device and mode of playing is almost identical with to-day's transverse flute. The length of the instrument as now put together is twelve inches; its original length is uncertain.

On the shelf at the side of this Greek relic are two flutes in fair preservation, No. 522, from the Castellani Collection. They are of bronze and appear to have an ivory lining. Here again it may be noted they have been made in sections; whether any of these are independent portions intended to turn round and so operate on holes beneath cannot be determined owing to the encrusted condition of the instrument. There are no signs of lugs on the bronze covering. Each flute has five finger-holes; like the Halicarnassus example they have superimposed on the top a mouth-piece, here of bronze representing the head and bust of a reclining Maenad. The mouth-end of one tube is stopped, the other is broken and cannot be determined. They are labelled 'A Pair of Reed Pipes.' Although a small reed cut in its original matrix could be inserted in this hole, it is pretty certain that it could also serve as a direct mouth embouchure. However, in any case the pipe must have been held sideways to play.

Here then are preserved specimens of the *πλαγιάυλος* family of flutes, a type often mentioned by the classical authors. Caspar Bartholinus in his elaborate and interesting work *De Tibiis Veterum* (Amsterdam, 1679) says that players on the plagiaulos 'modos vocis regebant,' indicating a method of governing the modes. He also states that the Bombyx was the longest of the flutes, quoting Aristotle and Pliny, who declare it was the most difficult to fill with breath, which would doubtless be correct if a reed was used. Quintilianus writing of this tibia speaks of the adjustable finger-holes 'Foramina alium clausis alium apertis.' Cicero alludes to the changing keys in 'Quam varios canendi modos.' Hesychius, a late Alexandrian writer, mentions the 'Pars tibiae quae ad os admovetur.' And Pollux declares they were played with 'arundinis foeminae specie.' Was this the single beating reed of the old Zammah, in distinction to the later double reed of the oboe type?

Mr. Welch in his book, p. 209, prints a passage in Greek from Arcadius quoted by Salmatius, *Exer. Plin.* 84, of some significance as to the adjusting of the movable metal encircling bands. The text is somewhat obscure, but it may be gathered that the closing rings could be slid round the surface; the employment of the word *στρέφοντες* distinctly indicates that they could be turned round. These citations are suggestive. Whether the Meroë flutes were played from a side hole, and without a reed, cannot positively be determined. We might know better if we were certain as to the true length of the instrument; there is a limit to satisfactory note production in small tubes blown from a side embouchure. In all probability these flutes were reed blown.

The four flutes recovered from Pompeii, now reposing in the Museum at Naples, supply a measure of evidence worth consideration; it is apparent that their construction closely approximates to that of the Meroë examples. They have an inner tube of ivory with a bronze casing, and what is more important, they are furnished with the revolving rings, here believed to be of silver. If a reed had been inserted in the bulb-shaped mouth end, this, being a fragile tongue of wood, has perished in the long centuries while it lay after the eruption of Vesuvius. The length of these flutes is given as twenty-six inches; with their small bore (three-eighths) it would be very difficult to produce notes of any strength of tone. But with a reed, especially a double reed, it would be as easy as to play the tenoroon—an old bassoon an octave above our bass orchestral instrument. The lowest note obtained would depend upon the stiffness and length of the reed employed in conjunction with the column of air set in vibration. If a reed was used, then the Meroë flutes would fall into the category of the oboe family. Pliny speaks of the instrument as possessing 'lingulas (*i.e.* tongues or speaking reeds) et foramina' (holes). There is a remarkable passage in Horace which perhaps affords some clue:—*Ars Poetica*, l. 202–5, 'Tibia non, ut nunc, orichalco vincta, tubaeque Aemula; sed tenuis simplexque foramine paucos Adspirare et adesse choris erat utilis.'—'The flute was not, as now, bound with (hard?) brass, and rivalling the trumpet; but being small and plain

was useful to blow with its few holes to assist the chorus.' This comment on the distinction between the old soft simple flute, and the (then) modern one bound with metal, striving to imitate the tone of a trumpet, is indeed significant. To some extent this stridency would result from the employment of a reed, and a considerable breath force. Well might the players need the use of a *capistrum* band to protect their cheeks from the internal breath pressure. After certain experiments with an arghool reed it was the settled opinion of Monsieur C. V. Mahillon, the well-known Belgian instrument maker, connected with the Brussels Music Museum, that a broad double reed was used with the Pompeian flutes; his conclusion has not been controverted. Incidentally it may be observed that, considering the great length of this set of instruments in the case of the one possessing fifteen finger-holes, and apparently furnished with five closing rings, owing to the distant spread of the holes, it must have been very difficult to reach and stop all when required to be closed by the fingers. In the Museum of the Capitol at Rome is a mosaic of the imperial period representing a tragic masque; the players have flutes like those found at Pompeii, seemingly furnished with double reeds. The mosaic was found in 1828 in the course of some excavations on the Mount Avectin.

Corinth was the city where the best and most artistic flutes were made, but Alexandria ran it close for fame. No slight combinative skill was displayed in the planning, gauging the bores, and putting together the flutes; the ornamentation, inlaying, and finish of the instruments seems to have been as fine in its way as was the work of the Italian lute makers of the seventeenth century. There are many records of the high esteem in which these Greek productions were held, and of the enormous prices paid for them. If there were any good local Meroë players, as apart from the Greek immigrants invited to go to the luxurious city to exhibit their skill, it is very unlikely that they could obtain instruments of this advanced character; they would probably be content with their home manufacture. The visiting musicians were doubtless Greeks, the theorists of which land had perfected the older Egyptian musical system, and the craftsmen were skilled instrument makers; of course they brought their favourite flutes to the Upper Nile city.

The fragments of the five examples shown in the frame (Fig. 1) are placed together to make up an uniform length of about ten inches. What are believed to be their outlets, rounded conical slightly bell-shaped pieces, are put to the right.

No. 1 consists of five pieces. There is one large round hole in the second portion, and two smaller in the next; some of the ivory lining still remains attached. There are no holes in the next portion but a slight crack will be observed running along the top; this may indicate that the method of construction was to bend round and join up lengthways the pieces of the bronze covering.

No. 2. A similar break is seen in the first portion of this example. The reduction of diameter at the left end may indicate that it was intended for

a turning ring to be worked here. The next portion discloses in its middle the ivory lining intact; as it shows no finger-hole, it must be looked upon as a socket-joint to unite two portions of the flute. The conical outlet follows.

No. 3 consists of six pieces of much importance. On the surfaces of the first, second, third and fifth pieces will be seen inverted Λ -shaped protuberances. These are the lugs or ears fastened to the tops of the revolving rings; they form a sort of boss for the fingers to grasp and so turn easily when required to shut off a note not wanted; the closed dome-shaped



FIG. 1.—FRAGMENTS OF FLUTES FROM MEROE.

spring-keys on our wind instruments now serve an identical purpose. It may be mentioned that in certain of the brass instruments of Austrian bands circular valves are employed instead of pistons or sliders. It will be noticed that in this example some of the holes are rectangular, and that they differ in size, as do the round holes. The inference is that the Greek makers well recognized the necessity of true intonation, perceiving that on the precise size of the ventages depended the tonal accuracy of the notes produced. The larger the hole, the sharper or higher was the note; this method of graduation secured just intonation, on which the Greek theorists laid great stress. Holes in the first and fifth pieces remain open. The others are closed.

No. 4 consists of five pieces. On the first are found two lugs with rings, though not in line; the first has its squared hole uncovered. Then comes a joint followed by another larger hole that must have remained open always; beyond that is the second lug with its ring hole covered up. The next two portions exhibit squared holes open, they are of different sizes. Then is placed a piece with a portion of the ivory connecting joint still remaining.

No. 5 consists of five pieces. The first shews trace of a lug broken off. The next displays quite a long piece of its ivory lining. The third exhibits on its face two small round holes; perhaps the corresponding holes are in the ivory beneath, but the rings have got turned round and will no longer work, so these under-holes do not appear. The fourth and fifth portions now attached together have each a lug on them, one round hole in the bronze is in advance of this; running from it is a longitudinal crack. The ringed formation is here very clear, the respective round finger-holes remain open just opposite the lugs.

No. 7 consists of fragments of ivory only. If these ever possessed a bronze exterior it has disappeared; there is certainly a green metal stain on the socket of the first piece. Here is a round finger-hole, and then a remarkable ventage somewhat in the form of a comma stop (9). If a guess may be made as to the purpose of this curiously shaped hole, it is that it was intended to serve a double purpose. If left entirely unclosed, it would yield a whole tone note; by graduating the surface covered (more easy to accomplish than with round or squared vents) a semitone or a smaller enharmonic interval could be obtained. The remarkable eleven-holed short reed-blown flute found in 1888 in the cemetery of Akhmin, the ancient Panopolis, was furnished with an ingenious method for obtaining this small interval, certainly used by the Egyptians long before the time of the Greek civilization. There is an enlightening passage in the old French writer Solomon de Caus (1614) as to skilled players covering the holes little by little:—'*Peuvent les hauser ou baisser à leur plaisir par le moyen des doigts (sic) qui bouchent lesdits trous peu à peu.*' It seems that this method of change of note, and 'justness' has obtained from time immemorial. To-day our players obtain small differences of intonation by the manipulation of their lips. Old hautboys had for use two small holes side by side, instead of one large one for use as required. The next piece on the rail is a piece of ivory neatly graduated to a curve; the outlet with some slight ring marks cut round it complete the examples on this rod.

On the lower cross rail of the frame (No. 6) are placed three fragments of the bronze, the incrustation partly filed off to shew the bronze surface. Then a piece of a smaller pipe with the jointure slit shewing; a broken little section of the flute disclosing its ivory lining; finally two fragments of the ivory, one stained green by the metal that had been above it, the other now cleaned.

It should be pointed out that the lugs have small pin-holes through the top. Was this to enable them to be fastened together by tying to a rod

running along, so that all the closing rings could be turned at the same time ?

The little wooden frame on which the pieces are strung is deposited in the Museum of the Institute of Archaeology attached to the University of Liverpool.

There seems every probability that the flutes, which these relics represent, belonged to a Greek artist bringing with him for performance at Meroë his own improved and esteemed instruments. They are not likely to have been made locally.

The possession of these most interesting fragments from Meroë, recovered from the soil of the oldest of the civilizations, if it does not add a fresh full chapter to the historical account of the flute family, yet supplies valuable evidence of an important development in the descent of that delightful and most ancient instrument.

T. LEA SOUTHGATE.

PARCHMENTS OF THE PARTHIAN PERIOD FROM AVROMAN IN KURDISTAN.

[PLATES I.-III.]

AVROMAN is a town in Persian Kurdistan lying close to the Turkish frontier between the sources of the Lesser Zab and the course of the Diala River some distance to the north of the highway from Bagdad (say Ctesiphon) to Hamadán (Ecbatana). Near it in a cave in the mountain called Kuh-i-Sálán, a peasant found about the year 1909 a stone jar hermetically sealed; in it were decayed millet seeds¹ and several documents. These passed from hand to hand and some were lost, only three have survived; two, which being Greek most nearly concern us, are almost perfect, they have only suffered a certain amount from wear and from the gnawing of mice; the third written in an Aramaic script which has not yet been deciphered is said to have been much larger when found; what is left has been a good deal torn and is patched with modern leather.



SKETCH MAP.

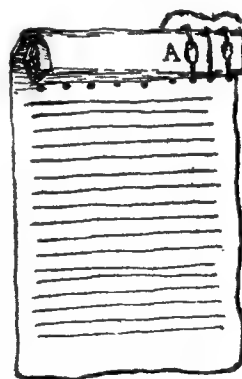


DIAGRAM OF II. BEFORE COMPLETE UNROLLING.

MUD
SEAL
ATA



Mirza Sa'íd Khán, an English-trained doctor at Sinna, the largest town in the neighbourhood, heard of the find and recognised that it was probably of historical importance. He made great efforts, even at the risk of his life, to secure the documents, and finally succeeded, although their possessors, in spite of the careless way in which they had kept them, were not at all inclined to part with them.

¹ It is curious that Theophrastus, *Hist. Plant.* VIII. xi. 6, remarks that millet keeps particularly well in Media.

Dr. Sa'íd Khán came to England in October, 1913, to renew his professional knowledge and to obtain a fresh supply of medical stores. On his arrival he sent the parchments to my colleague Professor E. G. Browne, who entrusted them to me and I made a preliminary communication about them to the Society on November 11. Since then Dr. Sa'íd Khán's friends adopted the view that he was not justified in depriving his philanthropic work of the aid which it might receive from the price that so great a rarity as this find might fetch, but as long as he had control he kindly reserved to me the right of publication. The documents were sold at Sotheby's, but happily they have found a home in the British Museum. I am most grateful to its authorities for letting me carry out my project of publishing them in this *Journal*.

DESCRIPTION.

The two perfect documents are irregular rectangles, the height being greater than the breadth: No. I. measures about 5.6×9.5 in. (14×24 cm.), No. II., $8 \times 10\frac{1}{2}$ in. (21×27 cm.). Each contains two texts (A and B, more or less duplicates, see below) and by this their shape is conditioned. Only the upper text of each document has been reproduced, very slightly less than natural size, for the purposes of this article. The whole documents are to be published in the best possible facsimile in the 1915 part of the New Palaeographical Society. No. III. now measures $6 \times 3\frac{3}{4}$ in. (15×9.5 cm.). If it is the lower of a pair of duplicates the original sheet must have been $6 \times 7\frac{1}{2}$ in., very much the proportion of II. The wide margin below looks like the original bottom; that above is wider than the normal space between the lines and has no tails coming down into it, so that the cutting was made along some kind of gap in the text.

On the back of I. there are 5 lines of writing in the same alphabet as III. but a little more upright (*v.* Table II. Col. IV.): it is the same way up as the Greek and behind the upper part of I. A. Two more lines run parallel to these, but the other way up at the back of I. B, about 3 in. (7.5 cm.) from the bottom. A transverse endorsement runs upwards about $1\frac{1}{4}$ in. (3 cm.) from the edge on the left as you look at the back. These endorsements ought to contain the same proper-names as the Greek and to render the riddle of the alphabet soluble, but they are too much rubbed to be any use except to shew that the third document is not entirely separate from I. and II.

When they reached my hands documents I. and III. had been completely unrolled, though I. still shewed the folds into which it had been pressed. No. II. was as the diagram shews it, the lower half unrolled, the upper undone on the left side, but still tightly rolled up and held by string on the right side. The string could not be removed without cutting it or breaking two mud seals, of which one had lost all its surface; upon the other, though it was much disintegrated, there could still be distinguished a device something like an E within a border of lines. Before proceeding to open it I had the document photographed. Assuming that a perfect record of its

original appearance had thus been secured, I cut the string and unrolled the upper portion. As a matter of fact the negative had been unsuccessful and the operator, who had never failed me before, had omitted to inform me at once. Still the diagram gives the arrangement in all essentials.

The material of all three documents is parchment, or perhaps leather, now dark yellow or brown; it is not very well prepared; the writing has had to avoid certain rough places in the skin and the hair has not been perfectly removed. From time immemorial *διφθέραι* have been the natural writing material. We hear of them in Ionia, among the Jews and among the Persians. Worse than the burning of Persepolis by the accursed Alexander the Roman was the fact that in it perished the precious works of Zoroaster, written in golden ink upon prepared cowskins. Ma Twan-lin and the other Chinese authorities mention that the inhabitants of 'An-si (Parthia) write horizontally upon skins.²

In view of this general use of skins for writing it is remarkable that so few have survived from early times: Professor Flinders Petrie tells me of a leather roll dating from the twelfth Egyptian dynasty, now in Berlin; and there is an Aramaic document on leather from Elephantine.^{2a} Otherwise the earliest written parchments found hitherto are the well-known pages of Demosthenes,³ and of the *Cretes* of Euripides,⁴ both referred to the second century A.D., but I do not know whether Turkistan has yielded anything older.

Documents I. and II. are each in duplicate. The top or A version was in each case rolled up tightly and bound round and round with string passed through the holes in the blank space between the two versions. These holes can be clearly seen on the facsimile of II. A; on the facsimile of I. only two or three shew as the mice have eaten so much away just along this line. The seals of the parties and witnesses were then affixed in token that the 'close' version A (if I may so call it) agreed with the 'patent' or B version. The latter remained always accessible, but in case of doubt the string could be cut in the presence of proper authority and the 'close' version opened to prove or disprove any suspected tampering with the 'patent' version.

This matter of the 'close' and 'patent' versions can best be taken in connexion with the general form in which the documents are drawn up. It may be mentioned here that in the case of I. the device has failed to prevent fraud, or else a change has been made by consent without the parties troubling to indicate it in both versions: for whereas the sum named in the close version A is thirty drachmas, in the patent version B thirty was written but altered to forty. The alteration is so obvious that it can hardly have been meant to deceive anyone. Other differences may be discussed later when we come to the purport of the documents.

² A. Rémusat in *Nouv. Mém. Asiat.* i. p. 218.

^{2a} E. Sachau, *Aramäische Papyrus u. Ostraka aus Elephantine*, p. xxviii. P. 13443, c. 500 B.C.

³ British Museum, Add. MS. 34473(1); *New*

Palaeographical Soc. i. 2.

⁴ Berlin P. 13217: *Berliner Klassikertexte* v. 2, p. 73 sqq.; W. Schubart, *Pap. Gr. Berol.* 30 a; *New Pal. Soc.* ii. 28.

The actual hands are of very great palaeographical interest in view of the extreme rarity of non-Egyptian Greek writing other than formal inscriptions.⁵ Though the few specimens we possess fit fairly well into the series of Egyptian documents they generally have something unusual about them, but as they come from different parts of the Greek world there is no characteristic that they have in common. So our documents are neither of them quite like Egyptian writing. As far as place goes they ought to be nearest to the pieces from Seleucia in Pieria^{5a} or Myra in Lycia,⁶ but both these belong to the end of the second century A.D., so no comparison is possible. In regard to date the first century B.C. is not very well represented even in Egypt, but the Herculanæan Papyri are generally referred to it and it is among these that, as Sir Frederic Kenyon has pointed out, at any rate I. finds its closest analogues (see Table I.).

For, indeed, the writing of the most part of I. is rather to be classed with book-hands than with cursives, as the letters are very little run together and are fairly carefully, though not elegantly, formed. Among the Tables of Alphabets given by Sir Edward Maunde Thompson⁷ and Professor Gardthausen,⁸ it comes closest to those taken from Volumina Herculanensia, and still closer to the alphabet of P. Nap. 1429 as given in Hayter's plates.⁹ Dr. Hunt has pointed out to me that P. Oxy. 236a,¹⁰ dated 64 B.C., offers decided resemblances, especially as regards the peculiar ϵ with the top turned back and a sharp angle below, but on the whole the Egyptian piece is a good deal more cursive: in I. Π with a detached stroke to the right is distinctly Ptolemaic,¹¹ but the rounded α , which Kenyon calls a test letter, is rather Roman¹² and so is the ξ . The retention of an epigraphic Σ for the numeral occurs in the Flinders Petrie Papyri.¹² The hand which wrote the line after the witnesses' names in I. A, with perhaps the corresponding part in I. B, and which altered thirty to forty in B, is much less careful and differs enough to deserve a separate column in the table of alphabets, but I am inclined to think that the two hands are really one. It is curious that

⁵ The changes in the letters used on Parthian coins seem due mostly to unintelligent copying by a series of engravers rather than to the development of Greek writing as practically used in Parthian lands; see J. de Morgan, *Rev. Arch.* 1912, pp. 1-31, 'Étude sur la décadence de l'écriture grecque sous la dynastie des Arsacides'; but one or two details recall our documents. See also W. Wroth, *Catalogue of Greek Coins in the British Museum: Parthia*, 1903.

^{5a} *Palaeogr. Soc.* ii. 184, date.

⁶ *P. Lond.* (Brit. Mus.), iii. 1178, Pl. XL., l. 66 sqq.; cf. Mitteis-Wilcken, *Grundzüge und Chrestomathie der Papyrskunde*, I. ii. p. 184.

⁷ *Introd. to Gr. and Latin Palaeogr.* (1912), p. 142 (No. 2).

⁸ *Gr. Palaeogr.*² Taf. I. Nos. 10. 11.

⁹ *Thirty-six Engravings of Texts and Alpha-*

bets from the Herculanæan Fragments, Oxford, 1891, No. 3, Demetrii, in *Aporias Polyacni*; cf. *Photographs of Facsimiles . . . in the Bodleian Library*, published by the Oxford Philological Society, 1889, vol. vi. No. 1243. This shows the rounded α , but Kenyon ('The Palaeogr. of the Herc. Pap.,' *Festschr. Th. Gomperz dargebr.* p. 376) seems to deny that this occurs at Herculanæum.

¹⁰ *Oxyrhynchus Pap.* ii. p. 140, Pl. V. (p. 33).

¹¹ Something like it appears on a tetradrachm of Phraortes IV., *B.M.C. Parthia*, Pl. XVIII. 16.

¹² *P. Petr.*, ii. introd., p. 39, No. IV. 11 [p. 14], Pl. IV. a, ll. 4, 7, c. 255 B.C.; cf. F. W. G. Foat, *J.H.S.* xxii. p. 145; also *P. Hib.* i. 66, l. 1, Camb. Univ. Lib. Add. MS. 4465.

TABLE I.

[illegible]

Alphabets and Groups of Letters, combined and uncombined.

the carefully written I. leaves out ι adscript while the later and more careless II. puts it in.

Of II. Dr. Hunt writes that 'it has more archaic characteristics, which is singular as it is a couple of generations later. The tall ν is thoroughly Ptolemaic, also the very shallow μ .¹³ The man writes $-\omega\nu$ (and $-\alpha\nu$ in *e.g.* $\epsilon\pi\iota\phi\alpha\nu\acute{o}\upsilon\varsigma$) as it was written 100 years before, cf. *e.g.* *Tebtunis Papyri*, i. Pl. III. and VII. The η is very remarkable, being merely in the form of a half circle. I do not remember having met this before; it is developed out of μ which is again a good Ptolemaic form and which he sometimes writes properly, *e.g.* in $\kappa\lambda\eta\rho\omega\nu$, l. 8 (twice), but mostly the second curve is slurred over; ϵ too is often very negligent. The linking of the ν in $\gamma\epsilon\iota\tau\nu\acute{\iota}\alpha\iota$, A 8, is another characteristically early touch, cf. *e.g.* *Tebtunis*, i. Pl. III. l. 10.' The *Tebtunis papyri* mentioned are dated 118 and 113 B.C.¹⁴

And yet the whole effect is not at all Ptolemaic and on trying to find analogues for the ligatures exhibited in the table, I have been singularly unsuccessful. The method of joining the letters is quite unlike the line along the top which links even such a letter as ι on to the following in many Ptolemaic hands. The table shows how β , δ , θ , ι , ρ , ν and ϕ were incapable of really joining on to the letter following, exceptions are $\theta\eta$, $\theta\mu$, $\rho\omega$ and $\nu\nu$: in general, letters only join when they fit together without the need of a connecting line. But on the other hand ϵ makes an astonishing series of ligatures with almost every letter and α , η , λ , ν , σ and τ are almost as adaptable. Some of the shapes recall forms which we do not meet in Egypt until the Byzantine period, *e.g.* ϵ with no cross stroke in ligature and especially the ν . This latter only once occurs in the complete form, elsewhere it is either ν or ν ; it recalls the Ptolemaic in the way its last limb sticks up, but in both forms the first limb is quite different. The η is like no η that ever I saw. The final impression left upon me after trying to find any similar hand among the facsimiles accessible to me is that we have here a representative, very probably degraded, of an independent branch of Greek cursive, and it is not quite inconceivable that in some ways it is nearer to the ancestor of the vellum minuscule than is the Graeco-Egyptian cursive. So much for the outer form of the documents.

In the following texts mistakes and misspellings of the scribes have not been eliminated or corrections suggested, because such corrections could not have claimed certainty: I have however supplied letters omitted by the scribe of II. in three cases. The translations aim at reproducing the confusions of the original instead of forcing a particular rectification of them: the comment on p. 51 attempts to make something of the resulting nonsense. When we were going through the documents together Professor Burkitt and Mr. Bell contributed readings that I cannot now identify.

¹³ \mathbf{M} is sometimes Π on Parthian coins, *c.g.* Phraohates III. *B.M.C. Parthia*, Pl. XI. 1.

¹⁴ A similar ν in $\text{'}\text{Απολλώνιος}$ (Schubart,

Pap. Gr. Berol. 8 c, 104 B.C.). This and *ib.* 8 d show the nearest approach to our η that I have met.

I.

- A. 1 βασιλεύοντος βασιλέων Ἀρσάκου εὐεργέτου δικαίου ἐπιφανούς καὶ φιλέλληνος, καὶ βασιλισσῶν Σιάκης τε τῆς ὁμοπατρίας αὐτοῦ ἀδελφῆς καὶ γυναικὸς καὶ Ἀρναζάτης τῆς ἐπικαλουμένη[s] Αὐτομά τῆς ἐγ βασιλείως μεγάλου Τιγράνου καὶ γυναικὸς αὐτ[οῦ]
- 5 καὶ Ἀζάτης τῆς ὁμοπατρίας αὐτοῦ ἀδελφῆς καὶ γυναικὸς, ~~ἔτους~~ ἐκ ~~ἐξ~~ μνητὸς Ἀπελλαίου, ἐν ὑπαρχείᾳ Βαισείροις πρὸς σταθμῷ Βαιθαβύρτοις ἐν κώμῃ Κωπάνει, ἐπὶ τῶν ὑπογεγραμμένων μαρτύρων, ἐξωμολογήσατο καὶ συνεγράψατο Βαράκης καὶ Σωβήνης οἱ τοῦ Μαίφόρρου νιοί, εἰληφέναι παρὰ Γαθάκου τοῦ Οἰπάτου ἀργυρίου ἐπιστήμιον δραχμὰς τριάκοντα, τειμὴν ἀμπέλου τῆς οὔσης ἐν κώμῃ Κωπάνει τὴν ἐπονομαζομένην Δαδβακανράς, τὸ ἴδιον μέρος, τὸ ἐπιβάλλον αὐτῷ μέρος παρὰ τῶν συνκλήρων μετὰ ὕδατος καὶ ἀκροδρύοις καρποφόροις τε καὶ ἀκάρτοις καὶ εἰσόδῳ καὶ ἐξόδῳ καὶ τοῖς συνκύρουσιν εἰς αὐτὴν πᾶσιν· ἔστω τὸ ἐν μέρος Βαράκει κ[αὶ]
- 15 τὸ ἐν μέρος Γαθάκει, ἐφ' ᾧ παραλαβὼν ὁ δηλούμενος Γαθάκης ἔξει τὴν ἀργυρώνητον ἀμπελον εἰς τὸν ἅπαντα χρόνον, αὐτὸς τε καὶ τὰ ἔγγονα αὐτοῦ, τελῶντες κατ' ἐνιαυτὸν κοινῇ τὰ γεγραμμένα ἐν τῇ παλαιᾷ συνγραφῇ πάντα ἀπὸ πλήρους, καὶ μὴ ἐξέστω τῷ Βαράκει, μηδὲ τῷ ἀδελφῷ αὐτοῦ, μηδὲ τοῖς ἐγγόνοις αὐτῶν, μηδὲ ἄλλῳ μὴθεὶ ὑπὲρ αὐτῶν, ἐγβαλεῖν τὸν Γαθάκην ἐκ τῆς ἀργυρωνήτου ἀμπέλου, μήτε αὐτόν, μηδὲ τὰ [ἐγ]γο[ν]α α[ὐτοῦ]· ὅς ἂν δὲ ἐγβάλῃ, ἢ ἄλλου ἐγβαλλομένου μὴ καταστὰς διεξά[ξ]ῃ, καὶ μὴ καθαρὰ ποιήσῃ, [ἐ]σται ἄκυρος καὶ προσαποτείσ[ει] ἢ ν' ἐλαβεν τειμὴν διπλ[ήν] καὶ ἄλλας ἐπιτείμων δραχμὰς [εἰ] καὶ τῷ βασιλεὶ τὰς
- 20 ἴσας· εἰάν [δὲ] καὶ ὁ Γαθάκης ὀλιγωρήσῃ τὴν [ἀμπε]λον καὶ μὴ ποιήσῃ αὐτῇ ν' ἔπαφον, ἀποτειννέτω τὸ α[ὐτὸ] ἐπ[ί]τειμον· κα[ὶ]
- 25 τὸ ὕδωρ παρὰ ὁδόσῃ ἡμέρας τὸ ἡμῖς καὶ [τῆς] ἐ[παγωγῆς] νυκτὸς τὸ ἡμῖς· μάρτυρες, Χοσστρόης Ὁρκαδάτου, [Ἀ]πάκης Ὑστοβώγου, Μει[ριδ]άτης Ὁχοβάγου. (change of writing) καὶ κρεῶν λ'ε', ελος α', ἄρτων κ.ν',
- 30 βούς ἡ, οἶνου κο. [β' καὶ] ἐνβάθρου δρ. α'.

27, καί, Hunt, pointing out that ι does turn to the left, e.g. in B 2. [τῆς ἐ]παγωγῆς: I had thought of [κα]παγωγῆς, but a break in the horizontal line of the crucial letter does not seem to come in a τ. Bell doubts the mark after καὶ

suiting the τ of τῆς, and thinks the break in π may be due to flaking off, but I am still unconvinced.

29, κρεῶν λ'ε'. Bell, perhaps λ(τραί) ε'. ελος, Hunt, ἐλᾶς. α', Bell, λ'.

- B 1 βασιλεύοντος βα[σι]λ[έ]ων Ἀρσ[ά]κ[ο]υ εὐεργ[έ]τον δικαί[ο]υ
 ἐ[πι]φανοῦς καὶ φιλέλλη[νος, καὶ β]ασιλισσῶν Σιάκης τε τῆς ὁμ[οπα]-
 τρίας αὐτοῦ ἀδελφῆς καὶ γυναικὸς κα[ὶ] Ἀ[ρνα]ζύτης τῆς ἐπικαλ[ου]-
 μένης Αὐτομά τῆς ἐγ βασιλείως μεγάλου Τιγρά[νου] καὶ γυναικὸς
 5 καὶ Ἀζάτης τῆς ὁμοπατρίας αὐτοῦ ἀδελφ[ῆς] κα[ὶ] γυναικός, ἔτους
 ἐκ[τ]’ μηνὸς Ἀπελλαίου, ἐν ὑπαρχείῳ Βαισείροι[ς] πρὸς σταθμῷ Βαι-
 θαβάρτοις ἐν κώμῃ Κωπάνει, ἐπὶ τῶν ὑπογεγραμμένων
 μαρτύρων, ἐξωμολογήσατο καὶ συνεγράψατο Βαράκης
 καὶ Σωβήνης οἱ τοῦ Μαιφόρρου υἱοί, εἰληφέναι παρὰ Γαθάκου
 10 τοῦ Οἰπάτου υἱοῦ ἀργυρίου ἐπισήμου δραχμὰς τριά-(*altered to τεσσαρᾶ*)κοντα, τει-
 μὴν ἀμπέλου τῆς οὔσης ἐν κ[ώμ]ῃ Κωπάνει τὴν ἐπονομαζο-
 μένην Γανζακὴν, τὸ ἴδιον μέρος τὸ ἐπιβάλλον αὐτῷ τὸ
 ἴδιον μετὰ ἀκροδρῦνους καρποφόροις τε καὶ ἀκάρποις καὶ εἰσό-
 δῳ καὶ ἐξόδῳ καὶ τοῖς συνκύνουσιν εἰς αὐτὸν πᾶσιν, τὸ ἡμι-
 15 συ Βαράκει καὶ τὸ ἡμισυ Γαθάκει, ἐφ’ ᾧ παραλαβὼν ὁ δηλοῦ-
 μένος Γαθάκης ἔξει εἰς τὸν ἅπαντα χρόνον, αὐτός τε καὶ τὰ
 ἔγγονα αὐτοῦ εἰς τὸν ἅπαντα χρόνον, τελῶντες κατ’ ἐνιαυ-
 [τὸν] τῶν γινομένων ἐν τῇ συγγραφῇ πάντα ἀπὸ πλήρους
 [κοινῇ?], καὶ μ[ὴ] ἐξέστω [τῷ Β]αράκει μηδὲ τοῖς ἐγγόνοις αὐ-
 20 [τοῖ, μηδὲ τῷ ἀδελ]φῷ, [μηδὲ] τῷ μεταλαμβάνοντι τὴν ἀ[μ]-
 [πελο]ν π[α]ρ’ αὐτῶν, ἐγβ[α]λ[ε]ῖν μηδὲ τὸν Γαθάκην, μηδὲ τὰ
 [ἔγγο]να αὐτοῦ· ὅς ἂν δὲ ἐγβά[λ]ῃ, ἢ ἄλλου ἐγβαλλ[ο]μένου μ[ὴ]
 [κ]αταστὰς διεξάξῃ, καὶ μὴ καθαρὰ ποιήσῃ, ἔ[σ]τα[ι] ἄκυρος
 [κ]αὶ προσαποτείσει ἣν ἔλαβεν τειμὴν διπλὴν κ[α]ὶ ἄλλα[ς] ἐ-
 25 πιτείμον δραχμὰς ἕ’ καὶ τῷ βασιλεῖ τὰς ἴσας· ὁμοίως δὲ
 καὶ ἐὰν ὁ Γαθάκης ὀλιγωρήσῃ τὴν ἀμπέλον καὶ μὴ ποιή-
 σῃ αὐτὴν ἔπαφον, ἀποτεῖσει τὸ αὐτὸ ἐπίτειμον· ἔξει δὲ καὶ
 τὸ ὕδωρ τὸ ἐπιβάλλον αὐτῷ μέρος μ[ε]τὰ τῷ συν[κλ]ήρω[ν].
 ἔγγονον δὲ καὶ συνέγδοτον κατέστησεν [Βαράκης καὶ Σωβήνης]
 30 Χοστρούην καὶ Ἀπάκην· μάρτυρες, Δηνόβαζος Ορο[...],
 Μαιριδάτης Ὁχοβάγου, Φραάτης Συκυνήματος, Μαρζυ[...]
 ρης. δώσει δὲ καὶ ὁ Γαθάκης τῷ Βαράκει ἐνβάθρου δρ. α’, κρεῶν ἐκ (?) [...]
 (*inter lineas*) κ[...], [β]οῦς ἡ (?)
 ἄρτων κ^α ν’, οἶνου κ^ο β’. δώσει δὲ καὶ Βαράκης Γαθάκει ἀπὸ λην[οῦ] τὸ
 (*inter lineas*) κα
 31 ρύμα καὶ ἀπόρρυμα καὶ ἰνδα κ[...]. νζην καὶ στέμφ[υ]λα ἀγέμιστ[α].

21, [πελο]ν π[α]ρ’ αὐτῶν ἐγβ[α]λ[ε]ῖν, Bell.

32, κρεῶν ἐκ (?), Bell.

29, Hunt pointed out that Βαράκης is too short.

34, κα may be ζ’α. κ[...]. νζην, Hunt.

II.

- A 1 βασιλεύοντος βασιλέων Ἀρσάκου εὐεργέτου δικαίου ἐπιφανοῦς καὶ φιλέλληνας, καὶ βασιλισσῶν Ὀλεννεϊρῆς, Κλ[εο]πάτρας, Βασείρ[α]ς καὶ Βισθειβάναπος, ἔτους ἐνὸς ἐνενηκοστοῦ διακοσιοστοῦ, ἐν ὑπαρχείᾳ Βασίρ[α]οροις πρὸς σταθμῷ Δησακδὶς ἐν κώμῃ Κωφάνει, ἐπὶ τῶν ὑπογεγραμμένων μαρτύρ[ων], ἐξωμολογήσατο καὶ σινε-
 5 γράψατο Ἀσπωμάκης Γαάκου ἔχειν παρὰ Δήνης Γαθάκου ἀργυρίου δραχ-
 μὰς πεντήκοντα πέντε τιμὴν, καὶ δεδωκέναι ἐν ψ[ειλο]φύτῳ ἄμπελον τὴν ἐπικαλου-
 μένην Δαδβακαβὰγ σὺν εἰσόδῳ καὶ ἐξόδῳ καὶ ὕδασι τοῖς ὑπάρχουσιν μετὰ
 τῶν συνκλήρων ὄρια καὶ γειννία ἀπὸ τῶν ἀνατολῶν μετὰ τῶν συνκλήρων
 καθὼς ἐν τ[ῇ] συνγραφῇ· τελέσουσι δὲ αἰεὶ κατ' ἐνιαυτ[ὸ]ν σκέλος δραχμὴν μίαν,
 10 οἶνον κοτύλας δύο, ἄρτ[ω]ν κα', βοῦς πέντε, κρεῖθρον δύο· ὑπ[έ]σχε]το δὲ μηδὲν τῶν προγε-
 γραμμένων ἀθετήσιν, μήτε αὐτόν, μηδὲ τοῖς μεταλα[μβάνοντ]ας παρ' αὐτοῦ τρόπῳ μηδεὶ.
 Ἀραμάσδης Ἰωδαβόχθ<ο>ν, Μιραδάτης Μιραβανδάκου, Γερ[ί]κης Ἀρδῆνου· κατέστησεν
 13 Ἀρθασθάτης Δαργήνου.

- ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο (string holes)
 B 1 βασιλεύοντος βασιλέων Ἀρσάκου εὐεργέτ[ο]ν δικαίου ἐπιφανοῦς καὶ φιλέλληνας
 καὶ βασιλισσῶν Ὀλεννεϊρῆς, Κ[λ]εοπάτρας, Βασείρτας, Βισθειβάναπος, [έ]το]υς
 ἐνὸς ἐνενηκοστοῦ διακοσιοστοῦ, ἐν κώμῃ Κωφάνει ἐν ὑπαρχείᾳ Βα[σ]ίραοροις
 πρὸς σ[τα]θμῷ Δησακιδίδου, ἐπὶ τῶν ὑπογεγραμμένων μαρτύρων, ἐξωμο-
 5 λογήσατο καὶ συνεγράψατο Ἀσπωμάκης Γαάκου ἔχει[ν] παρὰ Δήνης
 τοῦ Γαθάκου ἀργυρίου δραχμὰς πεντήκοντα πέντε, καὶ δ[ε]δωκέν[α]ι [α]ὐτῷ
 ἄμπελον ἐν ψειλοφύτῳ τ[ῇ]ν ἐπικαλουμ[έν]ην Δαδβακαβὰγ [σὺν] εἰσόδῳ καὶ
 ἐξόδῳ καὶ ὕ[δ]ασι τοῖς ὑπάρχουσιν μετὰ [τῶν συν]κλήρων ὄρια καὶ γειννία
 καθὼς ἐν τῇ παλαιᾷ συνγραφῇ· τελ[έ]σου[σιν] δ[έ] κατ' ἐνιαυτὸν ἐμβάθρον
 10 δραχμὴν, ἄρτων κα', βοῦς πέντε, σκέλος δραχμὴν μίαν σκέλος. βεβαιωτὴν
 δὲ κατέστησεν Ἀσθάτην Δαργήνου· ὃς κ[αὶ] πάρω]ν ἐξωμολογήσατο βεβαι<ώσιν>
 δύο κοτύλας προγεγραμμένας· ἐξάξοντα[ι] δ' ὃ τε πεπρακὼς καὶ ὃ βεβαι<ω>-
 τῆς, εἴαν τις ἐμποιήθῃ τῆς πεπραμμένης ἀμπέλου τρόπῳ μηδενὶ μηδε-
 νὶ μηδὲ παρενέσει μηδεμιᾷ, εἰ δὲ μή, τὴν τε ἀθέτησιν εἶναι αὐτὴν ἀκύρην
 15 κ[αὶ] τὸν ἀθετήσαντα ἐκτείσειν ἄ[νευ] δίκ[ης] καὶ κρίσεως δραχμὰς
 διακοσίας καὶ εἰς τὸ βασιλικὸν τὰς ἴσας· μάρτυρες, Ἀραμάσδης
 Ἰωδαβόχθου, Γερίκης Ἀρδῆνου, Μιραδάτης Μιραβανδάκου.

A 3, Δησακιδίς (?).

6, [νεο]φύτῳ, Hunt.

8, ὄρια καὶ γειννία, Bell.

10, ὑπ[έ]σχε]το, Bell.

13, Ἀρθασθάτης, Hunt.

B 4, Δησακιδιάτος or . . . σος, Hunt.

11, ἢς κ[αὶ] πάρω]ν, Hunt.

14, ἀκύρην, the η is queer but certainly not α.

15, ἄ[νευ] δίκ[ης], Bell.

- 30 Chosstroes {son of Orcadates, --} and {Apaces {son of Hystoboges, -----} Witnesses: Dēnobazus Oro , }
 Meiridates, son of Ochobages, {Phraates, son of Sycynema, Marzy }
 {res. And Gathaces shall also give Baraces 1 dr. for possession } 35 (?) of meat, {1 ελος (?) }
 50 baskets (?) of loaves, {8 oxen, } 2 cotylae (?) of wine { [and] 1 dr. for possession }
 { (between the lines 25 , 8 oxen (?)) . And Baraces too shall give Gathaces from the wine-press the }
 34 { must and drainings and and pressed grapes }.

TRANSLATION II.

- 1 In the reign of the King of Kings, Arsaces, the Benefactor, the Just, the Manifest and the
 and of the Queens, Olennieire, Cleopatra, Baseirta, Bistheibanaps, in the year [Philhellene,
 two hundred and ninety one {in the hyparchy Basiraora, near the station Desacidis }
 {in the village Cōphanis, in the hyparchy Basiraora }
 {in the village Cōphanis, } before the witnesses hereunder written, acknow-
 5 ledgment and agree^{ment} were made by Aspōmaces, son of Gaaces, that he had received from [Denes
 son of Gathaces fifty-five drachmae in money {as a price } and had given {him }
 the vineyard in the open country known as Dadbakabag with ingress and
 egress and the waters belonging in common with the co-possessors: the boundaries and abutments
 {on the east with the co-possessors } (to be) as in the {old } agreement: they shall {ever } pay yearly
 [{ as σκέλος }
 { for possession }
 10 {one } drachma, {two cotylae of wine, } 21 (or a basket) of loaves, five oxen {, two of barley: -----
 v. B line 12 } as σκέλος,
 [one drachma as σκέλος: as guarantor }
 {v. A lines 12, 13 ----- }
 {he appointed Asthates, son of Dargenes, who appeared and acknowledged that he would guarantee }
 {and he promised that he would invalidate none of } the aforesaid {provisions, either himself or those taking }
 {over from him, ----- }
 {----- (and ejectment will be obtained by both the vendor and the guaran- }
 {tor, if any one lay claim to the vineyard that has now been sold) } in no way whatever. { [what- }
 {ever] nor upon any pretext whatever: if he do not (keep this), the attempt to invalidate shall itself be void }
 15 {and the party that has made it shall pay without further process and decision of law two }
 {hundred drachmae and the same sum to the King's treasury. Witnesses, } Aramasdes
 son of Iodobochthes, {Miradates, son of Mirabandaces, Gerices, son of Ardēnes. He appointed }
 {Gerices, son of Ardēnes, Miradates, son of Mirabandaces. ----- }
 {(guarantor) Arthasthates, son of Dargēnes }
 {(v. B line 11) ----- }.

HISTORICAL INTEREST.

The interest presented by the contents of our documents, as transcribed and translated, falls into three main divisions, historical, linguistic, and legal. The mere fact that at the time and place in which they were composed Greek should have been the language chosen is unexpected, also the elements of the dates add a little to our knowledge of the Parthian kingdom: the forms in which some of the proper names occur throw fresh light upon the time when important sound changes took place in Iranian speech, while students of Hellenistic Greek are not indifferent to specimens from a new region; finally students of ancient law will find in the texts and in the very carelessness with which they were put together something worth comparing with the innumerable documents of Grecian Egypt.

The dating formulae give the official name of the King Arsaces, his style, the names of his Queens and the year of some era. It is clear at first sight that we have to do with the king of Parthia; no king of a subordinate kingdom such as Persis, Elymais, Media Atropatene, or even Armenia (except under Tigranes) would dare to call himself King of Kings. As all the Parthian kings bore the same official name, and as none of these queens seem to be known, this gives us little by which to check the remaining chronological elements and thereby determine what era was used.

Both style and era have light thrown upon them by being compared with those used upon certain cuneiform tablets,¹⁵ two Greek inscriptions from Babylon, one from Delos, and the Parthian coinage.^{15a} The tablets are some of them legal documents, others astronomical records, others (Reisner's) hymns to deities. Under the Seleucids a single date is given, the year of the Seleucid Era (A.Sel.); even under Seleucus I. it is not a regnal year but the year of an era, hence the translation of *a* is not *Anno VIII Seleuci regis*, but *Seleuco rege*. As soon as we get the name Arsaces, the dates become double (e.g. *c*); the year of a new era generally called the 'Arsacid' (A.Ars.) is put before the Seleucid year, though the Seleucid still occurs alone (e.g. *f, o*): I know of no certain example of the Arsacid year appearing without the Seleucid.

¹⁵ Some hundred and fifty are known with dates of the Seleucid Era and some forty with the addition of the Arsacid (see below). The first to publish one of these was G. Smith, *Assyrian Discoveries*, p. 389, but we owe most knowledge of them to Fr. J. N. Strassmaier, *Zeitschrift für Assyriologie*, iii. (1888), pp. 129-158, 'Arsaciden Inschriften'; iv. (1889), pp. 76-89 (J. Epping); v. (1890), pp. 341-366 (Epping and Strassmaier), 'Neue Babylonische Planeten Tafeln,' continued in vi. (1891), pp. 89-202, 217-244; vii. (1892), pp. 197-209, 'Einige chronologische Daten aus astronomischer Rechnungen'; historical results summed up in viii. (1893), pp. 106-113, 'Zur Chronologie der Seleuciden'; cf. Fr. F. X. Kugler, *Zf. f. Ass.*

xv. pp. 178-209, 'Zur Erklärung der Babylonischen Mondtafeln'; of G. A. Reisner's 'Sumerisch-Babylonische Hymnen nach Thontafeln Griechischer Zeit' (*Kgl. Museen zu Berlin, Mitth. aus der Orient. Samml.* x. 1896) only a dozen have Arsacid dates, the colophons being generally broken: the editor gives no translation or transcription; this is supplied in a few cases by Miss M. A. Hussey, *Amer. Journ. of Sem. Lang.* xxiii. (1906-7), p. 142; A. T. Clay, *Babylonian Records in the Library of J. Pierpont Morgan*, ii. (N.Y. 1913), 'Legal Documents from Erech dated in the Seleucid Era,' includes three with Arsacid dates: others are still unpublished.

^{15a} W. Wroth, *B.M.C. Parthia*, p. lxx.

DATING FORMULAE OF CERTAIN CUNEIFORM TABLETS AND GREEK
INSCRIPTIONS.

	B.C.	A.ARS.	A.SEL.
a	304/3		<i>Šattu</i> 8 ^{kan} <i>mSi-lu-ku šarru.</i> Year 8: Seleucus, King. ¹⁶
b	265/4		<i>Šattu</i> 47 ^{kan} <i>mAn-ti-'uk-su šarru rabū</i> <i>u mAn-ti'(uk-su mārū-</i> <i>šu, šarrāni).</i> Year 47: Antiochus, Great King, and Antiochus his son, Kings. ¹⁷
c	180, 79	<i>Šattu</i> 68 ^{kan} <i>ša ši-i šattu</i>	132 ^{kan} <i>mAr-ša-kan šu[rru].</i> Year 68 which is year 132: Arsaces, King. ¹⁸
d	c. 139	(date lost)	<i>mAr-sak-' u 'Ri . . . nu</i> <i>ummi-šu, šarrāni.</i> Arsaces and Ri . . . nu his mother, Kings. ¹⁹
e	133, 2	<i>Šattu</i> 115 ^{kan} <i>ša ši-i šattu</i>	179 ^{kan} <i>mAr-ša-ka-a šar matāti.</i> Year 115 which is year 179: Arsaces, King of countries.
f	110/09		<i>Šattu</i> 202 ^{kan} <i>mAr-ša-ka-a šarru.</i> Year 202: Arsaces, King. ²⁰
g	108/7	<i>Šattu</i> 140 ^{kan} <i>ša ši-i šattu</i>	204 ^{kan} <i>mAr-ša-kan šar šarrāni.</i> Year 140 which is year 204: Arsaces, King of Kings. ²¹
h	90	<i>Šattu</i> ²² 155 (sic) <i>kan ša ši-i šattu</i>	221 ^{kan} <i>mAr-ša-ka šarru ša it-[tar-</i> <i>ri-]di(?) | [^mGu]-tar(?)-</i> <i>za(?))-a u 'A-ši-'-a-ba-</i> <i>tum(?) [aššati-šu bēltu]</i> <i>| [u ' . . .]-ša-at amel(?)</i> <i>tir?) aššati(?))-šu bēltu.</i> Year 155 (157 ?) which is year 221: Arsaces, King, who was con- tinued as Gotarzes, and Aši'abatum [his wife, Lady and . . .] šāt amel tir (?) his wife, Lady. ²³

¹⁶ Erech. A. T. Clay, *op. cit.* No. 1, pp. 36, 37: ^m and ['] are the 'determinatives' for masculine and feminine persons, and ^{kan} for numerals.

¹⁷ Strassmaier, *Zt. f. Ass.* viii. p. 108: he always writes *sanat* the construct for *šattu*, and 47^{tu} the ordinal for 47^{kan}.

¹⁸ Strassmaier, *op. cit.* p. 110.

¹⁹ Erech. Clay, *op. cit.* No. 53, pp. 13, 33, 87. It is written by the scribe of his No. 53 dated A.Sel. 173.

²⁰ e, f, Strassmaier, *op. cit.* p. 111.

²¹ Strassmaier, *op. cit.* p. 111. Ten examples of this formula bring us down to Tišri 157 = 221 (B.C. 91), the date of Berlin, V.A.Th. 245, Reisner, No. 46, pp. viii, 82.

²² The month is Adar II., the last of the year.

²³ Berlin, V.A.Th. 265, 728, Reisner, No. 51, p. 93, ll. 9-11. Though the signs are not clear, the first wife's name gives us the right to supplements according to i and j. For the translation, see below, p. 40 n. 53.

PARCHMENTS OF THE PARTHIAN PERIOD FROM AVROMAN 35

	B.C.	A.ARS.	A.SEL.	
i	88/7	Šattu 160 ^{kan} ša ši-i šattu	224 ^{kan m} Ar-ša-ka-a ša i-ta[r-ri-du] ^m Gu-tar-za-a šarru u 'A-si-ba-a-t[um] 'aš-šati-šu bēltu.	
		Year 160 which is year 224:	Arsaces, who was continued as Gotarzes, King, and Asibātum, his wife, Lady. ²⁴	
j	87/6	Šattu 161 ^{kan} ša ši-i šattu	225 ^{kan m} Ar-ša-ka-a ša i-tar-ri-du ^m Gu-tar-za-a šarru u 'A-si-[bātum, aššati-šu bēltu].	
		Year 161 which is year 225:	Arsaces, who was continued as Gotarzes, King, and Asi[bātum, his wife, Lady]. ²⁵	
k		(date lost)	^m Ar-ša-ka-a šarru ša šumu-šu ^m Gu-tar-za-a. Arsaces, King, whose name is Gotarzes. ²⁶	
l	86/5	Šattu 162 ^{kan} ša ši-i šattu	226 ^{kan m} Ar-ša-kan šarru.	
		Year 162 which is year 226:	Arsaces, King. ²⁷	
m	80/79	Šattu 168 ^{kan} ša ši-i šattu	232 ^{kan m} Ar-ša-kan šarru ša i-tar-ri-du ^m U-ru-da-a šarru.	
		Year 168 which is year 232:	Arsaces, King, who was continued as Orodes, King. ²⁸	
n	76/5	Šattu 172 ^{kan} ša ši-i šattu	236 ^{kan m} Ar-ša-ka-a šar šarrāni u 'Iz-bu-bar-za-a aḥati-šu šarratu.	
		Year 172 which is year 236:	Arsaces, King of Kings, and Izbubarzâ, his sister, Queen.	
o	70/69		Šattu 242 ^{kan m} Ar-<ša>-ka-a šarru. Year 242: Ar[sa]ces, King. ^{28a}	

²⁴ Brit. Mus. Rm. 844. Brit. Mus. Rm. 710 shows part of this formula for the preceding year, 159=223; v. *Zt. f. Ass.* vi. p. 226, viii. p. 112.

²⁵ Pennsylvania Mus. 9. 21-7-88, corrected by reference to the original; cf. *Zt. f. Ass.* vi. p. 222; Eb. Schrader, *SB. d. k. pr. Ak. d. W. zu Berlin*, 1891, p. 3.

²⁶ *Zt. f. Ass.* vi. p. 226.

²⁷ Berlin, V.A.Th. 573, Reisner, No. 27, pp. viii. (206 is misprint for 226), 54, rev. l. 15;

ib. No. 55, pp. ix, 155, rev. l. 33, bears date 163=226, probably a mistake for 227; Strassmaier, *Zt. f. Ass.* v. p. 355, viii. p. 112, gives year 164=228; and Reisner, No. 49, pp. iv. 89, l. 21, year [167]=231 (B.C. 81-80); all these have the same formula.

²⁸ Brit. Mus. Rm. IV. 118 A; *Zt. f. Ass.* iii. p. 135, iv. p. 78 (Epping), viii. p. 112, wrongly read šar šarrāni: see Schrader, *SB. d. k. pr. Ak. d. W. zu Berlin*, 1890, p. 1327.

^{28a} n, o, Strassmaier, *Zt. f. Ass.* viii. p. 112.

	B.C.		A.A.R.		A.SEL.	
p 68/7	<i>Šattu</i> 180 ^{kan}	<i>ša ši-i šattu</i> 244 ^{kan m}	<i>Ar-ša-kan šarru u ʿPi-ir(?)-ri-ta-na-a aššati-šu, šarratu.</i>			
	Year 180	which is year 244 :	Arsaces, King, and Piritanâ,			his wife, Queen. ²⁹
q 35/4	<i>Šattu</i> 213 ^{kan}	<i>ša ši-i šattu</i> 277 ^{kan m}	<i>Ar-ša-kan šar šarrâni.</i>			
	Year 213	which is year 277 :	Arsaces, King of Kings. ³⁰			
r 122/1	[βασιλεύον]τος μεγάλου Ἀρσάκο[υ] [ἐπιφανοῦ]ς φιλέλληνας, ἔτου[ς] vac. ὡς ὁ βασιλεὺς [ᾗ]γ[ει] [κατὰ νόμον] ἱερὸν ΑΩ καὶ Ρ, [ὡς ἡ πόλις] Ι [Κ καὶ] Ρ					
					A.Sel. 191	
					A.Ars. 127	
s 111/10	[βα]σιλεύοντος [βασιλέων μεγάλου Ἀρσάκου] ἐπιφανοῦς φιλέλληνα[ος, ἔτους ὡς ἡ πόλις ἄγει] ΙΛ καὶ Ρ, ὡς ὁ βασιλεὺς [κατὰ νόμον ἱερὸν] ΒΞ, κ.τ.λ.					
					A.Ars. 137	
					A.Sel. 202 ³¹	
t c. 110	Δορ ράτην, τῶν πρώτων φίλων τοῦ βασιλέως βασιλέων μεγάλου Ἀρσάκου κ.τ.λ. ³²					

It is not indeed self-evident that the second era of these double dates is the Seleucid, as the Arsacids are not known to have got possession of Babylonia till between 144 and 139 B.C.;³³ but *c* seems to have nothing wrong with it and we must suppose that the Parthians made a successful raid during the weak reign of Seleucus IV. Philopator: so the temporary victory of Antiochus VII. Sidetes in 130 B.C. is recorded by a Seleucid date.³⁴ Also various Arsaces dates published by Strassmaier have caused difficulties, though nearly all of them may be accounted for.³⁵ However, these difficulties and the fact that we know of no Gotarzes about 88 B.C. or Orodes about 80, led Professor Schrader³⁶ to suggest that we had two

²⁹ Strassmaier, *Zt. f. Ass.* viii. p. 112.

³⁰ Strassmaier, *Zt. f. Ass.* vii. p. 204. This is the latest cuneiform date known, Oppert's year 5 of Pi-ha-ri-su, king of Pa-ar-su, *Doc. Juridiques de l'Assyrie*, p. 341, not being accepted as Pacorus.

³¹ Both from Babylon, restored by B. Haussoullier, 'Inscriptions Grecques de Babylon,' *Klio*, ix. (1909), p. 353, Nos. 2 and 1; but I am responsible for βασιλεύοντος βασιλέων in *s*. Mr. Haussoullier says 'quand ils [sc. les Grecs] emploient le verbe βασιλεύοντος, . . . le génitif βασιλέων n'est plus de mise et ils le suppriment,' but it fills out the line well, and I give reasons for it below. The text is a list of victors, both ἐφῆβοι and νεοί, in athletic contests.

³² Delos: Dittenberger, *O.G.I.* i. 430.

³³ Bevan, *House of Seleucus*, ii. p. 233; E. Breccia, *Klio*, v. 'Mitridate il Grande di Partia,'

pp. 49-54.

³⁴ A.Sel. 182: *Zt. f. Ass.* p. 202; Reisner, *Hymnen*, No. 25, v. A. T. Clay, *op. cit.* p. 12.

³⁵ There must be something wrong about *šattu* 108^{kan} *Ar-ša-ka-a šar šarrâni* in *Zt. f. Ass.* iii. (1888), p. 130, No. 1, unless E. Breccia, *Klio*, v. p. 41, n. 1, is right in taking it as a solitary Arsacid date without a Seleucid, and so giving the title *šar šarrâni* to Mithradates I.; more probably it ought to be A.Sel. 208, as Strassmaier says (*Zt. f. Ass.* viii. p. 111) that *g* (above) is the first with that title. The 156 of *Zt. f. Ass.* iii. p. 130, No. 2, is the A.Ars. of a double date which has lost its A.Sel.; the rest are mostly corrected in *Zt. f. Ass.* viii. p. 112.

³⁶ *SB. Berl.* 1890, pp. 1319-1332, 'Die Datirung der babylonischen sog. Arsaciden-inschriften,' 'Nachtrag,' *ib.* 1891, p. 3.

Arsacid Eras starting, one from the accession of Phraates I. in 181 B.C., the other from that of Mithradates II. about 117 B.C. This would bring Gotarzes into the known place, but does not help for Orodes or square with the astronomical phenomena as worked out by Strassmaier and Epping, and on the whole endorsed by Kugler.

The latter fixes the beginning of the Seleucid Era as found on the tablets at 1 Nisan (April, the first month of the Semitic year) 311 B.C., and that of the Arsacid Era at 1 Nisan 247 B.C., just 64 years later. The ordinary reckoning for the Seleucid Era starts from the beginning of the Macedonian year 1 Dios (October?) 312 B.C.: but we know from Ptolemy³⁷ that there was a modification of it *κατὰ Χαλδαίους*.³⁸ C. F. Lehmann (-Haupt)³⁹ has suggested that, just as the ordinary Seleucid Era beginning in October was shifted by the Babylonians to begin in the following Nisan (April), so the Babylonian Arsacid Era that also began in Nisan was an accommodation of a true Arsacid Era which could go back to the true date of Tiridates' accession, 247/6 B.C.; Eusebius in his tables gives for this event Ol. 133, and this is its first year. But if Mr. Haussoullier is right in restoring these Greek double dates from Babylon, very likely the 'Arsacid' date was a purely Babylonian matter. Note that in *s* the dates 137 and 202 differ by 65. Mr. Haussoullier thinks the reason to be that having less regard for the Arsacid than for the Seleucid Era the Greeks shifted it to begin with October, but it seems natural that they had rather kept to the original calculation of the Seleucid Era from October 312. Among the many cuneiform tablets with double dates only very few have a difference other than 64: these are probably due to mistakes.⁴⁰ The dates on Parthian coins, rare before Phraates IV., A.Sel. 276 = 38 B.C., are always supposed to be in the ordinary Seleucid reckoning.⁴¹

It seems therefore certain that both Eras as found in cuneiform sources go back to 1 Nisan B.C. 311 and 247 respectively, but likely that the Seleucid Era as used in Greek inscriptions, in documents like ours, and probably on coins, goes back to 1 Dios 312 B.C. Accordingly the date of I.,

³⁷ *Almagest*, ix. 7; xi. 7: ed. Heiberg, I. ii. pp. 267, 419.

³⁸ v. W. Wroth, *op. cit.* p. lxx, and his convenient table of the ordinary or Greek Seleucid Era, p. 282. F. K. Ginzel, *Handbuch der mathematischen und technischen Chronologie*, establishes the beginning of the ordinary Seleucid Era (iii. 1914, p. 41) and of the 'Babylonian' and 'Arsacid' Eras (i. 1906, pp. 136, 137) as above. Fr. F. X. Kugler, *Sternkunde und Sterndienst in Babel*, i. (1907), p. 214, concurs.

³⁹ 'Zur Arsaciden Era,' *Klio*, v. (1905), pp. 128-130.

⁴⁰ Strassmaier, *Zt. f. Ass.* iii. p. 131, No. 1, ll. 7, 8, A.Ars. 152 = A.Sel. 217; and viii.

p. 111, A.Ars. 111 = A.Sel. 174; *h* above, Reischer, *Hymnen*, No. 51, introd. p. ix. A.Ars. 157 = A.Sel. 221, but text, p. 93, rev. l. 9, A.Ars. 155; No. 55, introd. p. ix. A.Ars. 163 = A.Sel. 227, but text, p. 155, rev. l. 33, A.Sel. 226. Kugler, ap. Haussoullier, says he knows of but one instance.

⁴¹ Professor Rapson has suggested (*Num. Chron.* 1893, p. 212) that a drachma bearing EKP is dated by the Arsacid Era, but v. Wroth, *op. cit.* p. 21, No. 10, and note 3. EKP is in the exergue, the right place for a date; but there are unexplained monograms on other similar coins, and it may be that had the letters lent themselves thereto they would have appeared in the field as a monogram.

Apellaeus A.Sel. 225, comes out at November 88 B.C. and II., A.Sel. 291, at 22/21 B.C.

With regard to the royal style the comparison of our documents, the tablets, and the coins is very instructive. The King's titles in both I. and II. are alike and (save for *καὶ*) identical with the coin-legend first adopted by Orodes (57–37 B.C.) and continued by nearly all his successors, *βασιλέως βασιλέων Ἀρσάκου εὐεργέτου δικαίου ἐπιφανοῦς φιλέλληνας*: so II. of the time of Phrahates IV. agrees exactly with his coins.⁴² But by 88 B.C. the complete formula had not occurred upon coins: however, the way had been prepared for it by various approximations: *φιλέλληνας* appears on dated coins of Mithradates I. and of Himerus (?), and on one of Artabanus, who came between them: all kings after Mithradates II. seem to have used it: Himerus is the first to use *ἐπιφανοῦς*, as do all his successors. A close approach to our formula is on certain drachmae assigned by Wroth (p. 35) to Mithradates II., *βασιλέως βασιλέων Ἀρσάκου δικαίου εὐεργέτου καὶ φιλέλληνα(ς)*; only *ἐπιφανοῦς* is lacking: coins put down to kings who immediately succeeded to him have different combinations of the same elements save that *βασιλέως μεγάλου* takes the place of *βασιλέως βασιλέων*. The variations in the epithets which follow the name do not probably represent anything very much, but the assumption of the title 'King of Kings' instead of 'Great King'⁴³ implies a definite claim to the suzerainty of Western Asia. On their coins the Arsacids had styled themselves 'King' or 'Great King' until Mithradates II., some of whose coins have 'King of Kings.'^{43a} The coins assigned to his successors have 'Great King' until Mithradates III. in whose time 'King of Kings' is finally adopted. On the whole the tablets and Greek inscriptions support the numismatists; *šarru*, *šar matāti* or *šarru rabā*, 'King,' 'King of Lands,' or 'Great King,' are used on the former (e.g. *c, d, e, f*) down to 110 B.C.: from 108 B.C., the middle of the reign of Mithradates II., to Tišri⁴⁴ 91 we have *šar šarrāni*, 'King of Kings' (e.g. *g*): so *r* from 122 B.C. has *βασιλέως μεγάλου* and almost the same formula as the coin ascribed to Himerus dated 123 B.C.,⁴⁵ *s* is doubtful, and *t* of about 110 B.C. has *βασιλέως βασιλέων*: *šarru* occurs from 90 to 80 B.C. (*h, i, j, k, l, m*) and again c. 68 B.C. (*p*) in the reign of Phrahates III., to whom Pompey definitely refused the title 'King of Kings,'⁴⁶ and of course *q* in 35 B.C. has *šar šarrāni*. But as against Wroth's assignment of the coins we have *šar šarrāni* in 76 B.C. (*n*), and in view of their precise dating the tablets give the better lead. I am inclined to wonder whether among the coins that Wroth assigns to Mithradates II., all his Class II., those with a helmet

⁴² I have mostly followed Mr. Wroth, *B.M.C. Parthia*, and my new material has supported his conclusions in one or two points; but the attribution of undated coins to particular kings is so subjective that it is very unsafe to rely on numismatic evidence.

⁴³ For the significance of the titles, v. E. R. Bevan, 'Antiochus III. and his title Great King,' *J.H.S.* xxii. p. 241.

^{43a} So Wroth, *op. cit.* p. xxiii sqq.; *Num. Chron.* 1900, p. 186 sqq.: Gardner had said Mithr. I.

⁴⁴ The sign for this month is not quite certain, but *h* must be subsequent, being dated Adar II., the last month of the year.

⁴⁵ Wroth, *op. cit.* p. 194; *B.M.C.* pp. xxiii, 23.

⁴⁶ Plutarch, *Pompey*, 38.

and βασιλέως βασιλέων, should not rather be given to a king reigning c. 75 B.C., or at any rate the drachmae above mentioned, on which the full inscription seems to mark a later date.

The absence of βασιλέως βασιλέων on the coins had been explained by the fact that it coincided closely with the time when Tigranes of Armenia was claiming the highest place in Western Asia; the tablets seem to suggest that if some Parthian kings recognised his pretensions, others resisted them. It is not unlikely that the former received his support in an internal struggle against rivals who did not rely on or bow down before the Armenian King of Kings.

Our documents agree with the cuneiform tablets in naming queens side by side with the kings.⁴⁷ This was the practice of the Ptolemies, but not apparently of other Oriental states.⁴⁸ Further, I. and tablet *n* tell us that the queen was, again as among the Ptolemies and perhaps among the Seleucids,⁴⁹ the king's sister.^{49a} We knew from Herodian (iv. 10) that the kings took their wives among the descendants of Arsaces, and it might have been expected that they should marry their sisters as this practice, if not enjoined in the Avesta, is certainly approved in Pahlavi literature.⁵⁰ We may notice that foreign queens were also taken; for instance, Aryazate or Automa the daughter of Tigranes in I. and the Cleopatra in II. Strabo (XI. xiii. 1) speaks of a Parthian queen from Atropatene and Plutarch⁵¹ of Greek concubines; compare the case of Musa below.

In the case of tablet *d* it looks as if we had to do with a queen-regent and a minor, that is, with Phrahates II., who is usually supposed to have come to the throne about 138 B.C.: it is a pity that the exact date of the tablet is lost. The tablets quoted under *i* and *j*, A.Sel.Bab. 223, 224, 225, overlap document I. A.Sel.Gr. 225 before and after. The reading *ittaridu* (*ittarridu* or *it(t)arridu*) in *i*, *j* and *m*, is due to Dr. L. W. King⁵² who very kindly

⁴⁷ I have restored tablet *h* as having named two queens, but it is possible that Dr. Johns should have vetoed this, as the characters given by Reisner are not exactly *ʾaššati-šu*. *Ašīʾabat*um may have been the principal queen and the other the queen kept at Babylon. The names seem Iranian: *Ašīʾabat*um suggests *ašivant*, 'giving rewards,' and *pāti*, 'lord,' or *pāla*, 'protected'; *Piritāna*, *pir*, 'old man,' and *āna*, 'descendant'; *Izbu*barzā, *ispahi*, 'soldier,' *barz*, 'high,' or *varz*, 'work': but these are mere guesses, and the derivations need not be sought in Iranian at all.

⁴⁸ F. C. Burkitt, in notes to a revised translation of 'The Hymn of the Soul,' *The Quest*, v. No. 4 (1914), quotes our documents to illustrate the first lines of a letter to the exiled Prince, 'From thy Father, the King of Kings,—from the Queen, thy Mother,—And from thy Brother,—to thee, Our Son in Egypt, be greeting'; but it is a family letter, not a state document. Kamnaskires of Elam does name

his queen Anzaze on his coins: B. V. Head, *Hist. Num.*² p. 322; A. de la Fuye, *Rev. Num.* 1902, Pl. V. 2-6; A.Sel. 231.

⁴⁹ Bevan, *House of Seleucus*, ii. p. 279.

^{49a} So Lucan, viii. 404, *iacuere sorores in regum thalamis*, proves to be true.

⁵⁰ J. H. Moulton, *Hibbert Lectures*, 1913, 'Early Zoroastrianism,' pp. 205 sqq. Gutschmid, p. 43, suggests that Phriapatius called himself Philadelphus because of having complied with this custom, but the coins on which he founds this guess are assigned by Wroth to Artabanus I. (II.), who might so have expressed his regard for his great predecessor, Mithradates I. It is strange that the king of tablet *n*, who is said to have married his sister, is apparently Sinatruces, who came to the throne at the age of eighty.

⁵¹ *Crassus*, 32 *jin*.

⁵² Letters dated 16 Oct., 9 and 11 Nov., 1914, 25 Jan. 1915.

furnished me with the exact readings of the British Museum tablets and ascertained by writing out to Philadelphia that the tablet there agreed. Strassmaier had at first read the word (in *m*) as *ittaris*, afterwards Bezold and Schrader took it to be *ustarridu* and found it hard to explain. But Dr. King is quite clear about the reading as given above and the translation is his⁵³; it is well borne out by tablet *k*.⁵⁴ *Ašī'abatū* or *Asibātū* in *h*, *i*, cannot be the same as any of the queens' names in document I.,⁵⁵ so the Arsaces-Gotarzes is probably not the Arsaces of I.; this was perhaps Mithradates II., who is known to have reigned till 88 B.C.⁵⁶ Gotarzes may have been his son entrusted by him with the sub-kingdom of Babylon between Tišri and Adar II. A.Sel. 221, or else a rival admitting the hegemony of Armenia and so not claiming to be 'King of Kings.'

The next thirty years Justin merely sums up in Prologue XLII. with *varia complurium regum successio*: in his Epitome he jumps, apparently by mistake, from Mithradates II. to Mithradates III. and Orodes I. in 57 B.C.⁵⁷ Other literary sources give us Sinatruces circa 77–70 B.C. and Phrahates III. c. 70–57. The tablets now enable us to put into the gap between 88 and 77 the name of Gotarzes who overlapped with and succeeded to Mithradates II., and Orodes c. 80 B.C., who can hardly have been the Orodes known to us in 57 B.C. Though there were no doubt other claimants, these new names make us less inclined to accept Artabanus as king from 88 to 77, as for his existence he depends entirely upon a conjecture of Gutschmid.⁵⁸

⁵³ 'I suggest that we should read the verb as *u(t)aridu*, the Nifal of *tarādu* (תרעד). The ordinary meaning of *tarādu* in Assyrian is "to pursue," but in this phrase I would assign to it the meaning "to follow, to continue" (in the Nifal, of course, "to be continued"). We may compare the Arabic *ṭarada*, which in St. X. has the meaning "to pass from one subject to another," "to pass from one class to another" (Dozy, *Supplément aux Dictionnaires Arabes*, ii. p. 33); while in St. II. it has the meaning "to prolong" (of the voice), and in St. VIII. "to flow in a regular course" (of water), "to be consecutive," "to continue uninterruptedly" (Lane, *Arabic-English Lexicon*, pp. 1838 f.). In Hebrew, too, *ṭarad* is used in the Qal with the meaning "to be continuous." The word only occurs in the phrase *deleṭ(h) ṭōrēd(h)*, "a continuous dripping," i.e. in which one drop pursues another (cf. Gesenius, *Hebrew Lexicon*, Oxford, 1906, p. 382). We have thus ample justification, both from Arabic and Hebrew, for assigning this new meaning to the root in Assyrian—or, rather, in late Babylonian. The root meaning of "pursuit" is well brought out in its Hebrew use; and this closely parallels its employment in the Arsacid date-formulae—the idea of continuity regarded as an uninterrupted succession of separate units.' Canon

C. H. W. Johns, Litt.D., Master of St. Catharine's College, who gave me the reference to Clay's book and interpreted Reisner's for me, found the old reading *ustarridu* unsatisfactory, and heartily welcomed Dr. King's solution of the difficulty.

⁵⁴ A parallel to *ša sumu-šu Gutarzā* on tablet *k* is perhaps found in the coin legends βασι. βασι. Ἀρσάκου Λιο(?) εὐεργ. Φραάτου ἐπιφ. ἐπικαλούμενου φιλέλληνας ΓΟ[Ξ] (the apparent date A.Sel. 273=40–39 B.C., puts it into the reign of Phrahates IV. rather than Mithradates III. as Wroth, p. 66, suggests) and βασι. βασι. Ἀρσάκου ὕδς κεκαλούμενος Ἀρταβάνου Γωτέρξης (Wroth, p. 165), where the nominative is an awkward attempt to clear the sense.

⁵⁵ The second name of Aryazate, Automa, does a little suggest the end of *Ašī'abatū*.

⁵⁶ Gutschmid, p. 80.

⁵⁷ Lib. XLII. ii. 3–6, iv. 1, 2.

⁵⁸ Justin, Prolog. XLI. MSS. have: *In Parthis ut est constitutum imperium per Arsacem regem. Successores deinde eius Artabanus et Tigrane cognomine deus: a quo subacta est Media et Mesopotamia. Dictusque in excessu Arabiae situs. In Bactrianis autem, etc.* Prol. XLII. . . . *utque Phraati successit rex Mithridates cognomine magnus qui Armenis bellum intulit. Inde repetitae origines Armeniorum et situs. Ut varia*

It would be rash to assign any particular groups of coins to these new kings, but probably some of those given by Wroth to his Artabanus II., having βασιλέως μεγάλου, belong to our Gotarzes and Orodes who called themselves šarru simply, while perhaps of those he assigns to Mithradates II., Class II. (with helmet and βασ. βασιλέων) or at any rate part of the class, with the long inscription, should go to Sinatruces, within whose reign it comes. But where dates and monograms fail us, the grounds for assigning coins to particular kings are so slight that the attempt is well nigh hopeless: we cannot indeed be at all sure that a king might not let šar šarrāni continue in use on obscure native documents when he thought it politic to abandon the title on his coins with their wider range and intelligibility: still the case of Phrahates III. as exemplified on *o* and *p* argues for fair consistency in the matter.

Document I. therefore apparently belongs to the very end of the reign of Mithradates II. That he married a daughter of Tigranes is new. Tigranes had been a hostage in Parthia and probably her hand was bestowed in connexion with the action of Mithradates of Parthia in putting Tigranes,⁵⁹ then about forty-five and well old enough to have a marriageable daughter, on the throne instead of Artoasdes I., Tigranes ceding him seventy valleys as a reward: this was in 94 B.C. Tigranes was still in alliance with Parthia in 86 B.C., and used this support to make himself master of Syria, but shortly after attacks by external enemies, probably at first on the N.E. border, and internal dissensions brought low the Parthians' power. Then it was that Tigranes took the title of 'King of Kings' and forced some Parthian kings or

compturium regum in Parthis successione imperium accepit Orodes, etc.

In Epitome XLI. Justin speaks of Arsaces (I.), his son Arsaces (II.), to whom he gives no other name, Phriapatius, Phrahates (I.), Mithradates (I.), makes a digression to things Bactrian and returns to Mithradates (I.), his conquest of Media and Elymais as far as the Euphrates. In Epitome XLII. we have Phrahates (II.), Artabanus, Mithradates (II.), his attack on Armenia, an account of Armenia, and then the deposition of Mithradates (III.). Gutschmid, *Comm. Crit. in Prol. Tr. Pomp. ap. Justinum ed.* Rühl, p. lxi., and *Gesch. Irans*, p. 81 n., said that the words *successores to Arabiae situs* now in Prol. XLI. have fallen out between *Armeniorum et situs and ut varia* in Prol. XLII. because of the homoeoteleuton *situs, situs*, and have been put back into the wrong place: so Artabanus would be a successor of Mithradates II. and so would Tigranes, as he conquered Mesopotamia from M.'s heirs and assumed the title King of Kings. This seems very harsh; also the lost account of Arabia could not conceivably have come at the end of XLII.

which brings events down to 20 B.C. I prefer Vaillant's old correction *Mithridates* for *Tigranes*, so Artabanus becomes the second name of Arsaces II. (210-191), the only Arsacid without a second name. After a digression to Bactria we have mention of Mithradates I. and his conquests, which included Arabistān and gave good reason for an account of Arabia at the end of Book XLI. That Mithradates I. was called *θεός* we can infer from the coins assigned to his son and successor bearing the title *θεοπάτορος*. The psychology of the copyist's mistake is that he was sure that Eupator, the only Mithradates he knew of, did not conquer Mesopotamia, so he substituted the name that lay nearest in his mind. I note that Th. Reinach, *Mithridate Eupator*, p. 310, Justi, *Ir. Namenbuch*, pp. 31, 412, and Allotte de la Fuye, *Rev. Num.* 1904, p. 321, doubt Gutschmid's view, though Wroth accepts it. pp. xix., xxxi.

⁵⁹ Appian, *Syr.* 48, calls Tigranes the Great the son of Tigranes, and von Petrowicz thinks him an Arsacid; but Tigranes the Father was scarcely our Great King.

pretenders to acquiesce in it.⁶⁰ Perhaps it was the death of Mithradates II., his elderly son-in-law, that broke the bonds between Tigranes and Parthia and set him free to recover his seventy valleys and to invade not only Atropatene but Media proper somewhere about 86 B.C. Another daughter of Tigranes afterwards married Pacorus, three generations younger than Mithradates II. The Armenian princess has two names, one Aryazate, Iranian, and the other Automa, unintelligible, perhaps Armenian.

There can be no doubt that the Arsaces in Document II. is Phrahates IV., who used exactly the same titulature on his coins : but his dated tetradrachms stop at A.Sel. 289, two years before our document ;^{60a} probably this meant trouble of some sort or another. It was perhaps in this connexion that in 20 B.C. peace with Rome became so important that he actually restored the standards taken from Crassus and Antony, the proudest trophies of Parthian arms. In 10 or 9 B.C. he sent his sons to live under the protection of the Emperor. In 3-2 B.C. another son, Phrahataces, murdered him in conspiracy with his mother Musa, an Italian slave-girl sent as a present by Augustus.⁶¹ At first she had not been a real wife but moved by her beauty Phrahates had raised her to that position after the birth of her son. Oriental princes grow up quickly, but Phrahataces must have been born not long after the date of our document, which shews that in 21 B.C. Musa had not attained the dignity of queen. The names actually given do not lend themselves to interpretation, except Cleopatra, no doubt a daughter of one of the semi-Greek houses then still surviving in Western Asia.

PLACES MENTIONED.

Βαιθάβαρτα, I. A 6, B 6 : Semitic *Beth* "house."

Βαίσειρα, I. A 6, B 6 : perhaps the same as the following.

Βασιράορα, II. A 3, B 3.

Γανζακή, I. B 12.

Δαδβακαβάγ, II. A 7, B 7 : perhaps the same as the following.

Δαδβακανράς, I. A 11.

Δησακδής, II. A 3 ; *Δησακιδίδοις*, II. 4 (Dative).

Κώπανις, I. A 7, 11, B 8, 11 ; *Κώφανις*, II. A 4, B 3.

None of these are known except *Γανζακή*, the name of the chief town of Atropatene, said to be Takht-i-Sulaiman, on a river running into Lake Urumia : here it seems to be a mistake as the corresponding text I. A 11 has *Δαδβακανράς*. Ptolemy has two names rather like the first two in *Βίθαβα* or *Βίρθαβα* and *Βέσσαρα*, but he sets them far from Avroman, somewhere near the Tigris and west of Nineveh, in his longitudes and latitudes 77° 50'–38° 40' and 77°–37° 20'. There is nothing surprising in a Semitic name like Baithabarta occurring so near the Semitic language

⁶⁰ Justin, XL. i. 3 ; Gutschmid, p. 82.

^{60a} Wroth, p. 107.

⁶¹ Josephus, *Ant. Jud.* XVIII. ii. 4 (40),

Θεσμούσα, on coins *Θεὰ Οὐρανία Μοῦσα*, Wroth, pp. 139–141, Pl. XXIV. 1–3.

frontier. Dr. Sa'îd Khân gave me the names of several villages round Avroman, but none seemed to have any possible connexion with the names in the documents. There can be little doubt that *Κώπανις* and *Κώφανις* are the same, which makes it likely that *Βαίσειρα* and *Βασιρόρα* are to be identified. We must allow for great carelessness in writing down the names; apart from the substitution of Ganzace in I. we have in II. the very different forms *Δησακδῖς*, *Δησακιδίδοις* for what must be one name. That inclines me to think *Δαδβακαβάγ* of II. and *Δαδβακανράς* of I. are one and the same name; it has an Iranian look; the termination *baga* means lot in one case and perhaps *ras* is something similar, and the first part may have the same elements as Bagdad (*Deus dedit*) in reverse order. It is true that *Δαδβακαβάγ* is described as near the *σταθμός* Desakidida (or whatever the right form be) whereas *Δαδβακανράς* is near Baithabarta, but as both are in Cophanis, this might be due to a rearrangement of the *σταθμοί* or post-stations with *dâk*-bungalows on the king's highway. Isidorus Characenus writing *περὶ σταθμῶν Παρθικῶν* seems to give lists of such along roads which Roman invaders might conceivably wish to use, but he mentions neither of these. As to the *ὑπαρχίαι*—we hear of *ὑπαρχοί* in Persia,⁶¹ and in the empire of the Seleucids⁶² and actually of *ὑπαρχίαι*,⁶³ four or five making up one satrapy. The word may have survived under Roman rule⁶⁴; still more likely is it to have remained under the Parthians, who seem to have made as few changes of organization as possible.

NAMES OF PERSONS.⁶⁵

- '*Ἀζάτη*, I. AB 5: *Āzātu*, 'noble,' is a man's name in the Avesta, Justi, p. 54.
 'Ἀπάκης, I. A 28, B 30: cf. Apakan Wsemakan, general of Sapor II., Justi, p. 18.
 'Ἀραμάσδης, II. A 12, B 16: Moulton suggests, *Arəm-mazdah*, 'with right wisdom'; cp. Aramaiti as popularly understood, 'right thinking,' cf. A. Carnoy, *Muséon*, n.s. xiii. p. 127 sqq.
 'Ἀρθασθάτης, II. A 12, 'Ἀσθάρης, B 11^{65a}: perhaps *arta*, 'pure': Carnoy compares *astāta*, 'not standing,' but prefers to adduce the name *Astvatārata*, Bartholomae, col. 215, the same elements in reverse order, 'with body subject to justice.'

^{61a} Herodotus, iii. 66.

⁶² Dittenberger, *O.G.I.* 225, l. 36.

⁶³ *Ib.* 238, l. 1. See his notes on both passages, mostly founded on Haussoullier, *Rev. de Philologie*, xxv. (1901), p. 6 sqq.; cf. W. H. Buckler, 'Greek Inscr. from Sardes,' in *A.J.A.* xvi. (1912), p. 69. A. Corvatta, 'Divisione Amministrativa dell' Impero dei Seleucidi,' *Rendi conti d. r. Acc. d. Lincei*, x. (1901), p. 149, does not seem to recognise them.

⁶⁴ *O.G.I.* 532, l. 38.

⁶⁵ Though for these I had recourse to F.

Justi, *Iranisches Namenbuch*, Marburg, 1895, and Chr. Bartholomae, *Altiranisches Wörterbuch*, Strassburg, 1904; I should not have got far without the help and criticism of Professor J. H. Moulton, D.D., of Didsbury College, Manchester, Professor A. Carnoy, of Louvain, and Mr. E. J. Thomas, of the University Library, Cambridge, and I am much indebted to them. They are not, however, responsible for my errors.

^{65a} The word 5⁹ in III. looks like ארשטתא *Aršatata*.

- Ἀρδήνης, II. AB 10: perhaps *arta*, 'pure,' *daēnā*, 'faith,' or as Carnoy prefers to render, 'conscience,' Bartholomae, col. 665.
- Ἀρσάκης, I. AB 1; II. AB 1: *Aršaka*, derived from *arša*, 'bear.'
- Ἀρναζάτη, I. AB 3: Moulton suggests *arva* (Av. *aurva*), 'swift' or 'brave,' and *āzāta*, 'noble,' but says a *dvandva* name of this kind requires a parallel. Such Carnoy finds in *Wahištāzād*, 'best-noble,' Justi, p. 340, and perhaps *Čihvāzād*, 'high-noble,' *ib.* p. 163. Probably not *Arya*, 'Aryan,' as *v* was still an *u*, cf. *Ἑρώδου* = *Hurauda* on a coin, Wroth, *B.M.C.* p. 96. Perhaps divide *arva-zātā*, Moulton.
- Ἀσπωμάκης, II. AB 5: *aspa*, 'horse.'
- Ἀυτομά, I. AB 4: perhaps Armenian. Carnoy suggests the superlative of *aota*, 'cold,' Bartholomae, col. 41, or *aota*, 'understanding,' Justi, p. 52; cf. *Ἀυτοφραδάτης*, 'advanced in or by understanding.'
- Βαράκης, I. AB 8 *sqq.*: perhaps Semitic, *bāreqā*, 'fulgurans,' or *bārek*, *bārekā*, 'blessor,' E. J. Thomas. Carnoy compares *Warakes* (Justi, p. 348) or *vāhrka*, 'wolf.'
- Βάσειρτα, II. AB 2: cf. *vus*, 'at random,' e.g. *vasa-urt* or *vasa-varta*, 'turning or ruling at random,' Carnoy.
- Βισθειβάναψ, II. AB 2: *višta*, 'warrior' (cf. *Vištaspā*, Justi, p. 373) or *vahišta*, 'best.' It might be an altered form of *vanovišpa*, 'all blessing,' Bartholomae, col. 1354, Carnoy.
- Γαάκης, II. AB 5: perhaps the same as the next, intervocalic *θ* having become *h*;⁶⁶ cf. Hübschmann's derivation of Phrahatas from *Fraḍāta* below.
- Γαθάκης, I. AB 9 *sqq.*; II. A 5, B 6: perhaps *gāthāka*, 'rimer,' Moulton, or 'living after Gathic rule,' Carnoy; or from *gaēthā*, 'farm,' hence 'householder,' E. J. Thomas.
- Γερίκης, II. A 12, B 17: perhaps *gairika*, 'living in mountains,' Carnoy.
- Δαργηνής, II. A. 13, B 11: O. Pers. *darga*, 'long,' Skt. *āna*, 'mouth,' cf. *πρηνής* (?), Moulton. Perhaps 'holding something.'
- Δήνης, II. AB 5: (used as a genitive, possibly from fem. nom. *Δήνη*^{66a}): *daēnā*, Pahlavi *dēn*, 'faith.'
- Δηνόβαζος, I. B. 30: *Daēnāvazah*, 'advancing the faith,' is a name in the Avesta, Justi, p. 76, or it may be from *bazu*, 'arm,' e.g. *Φαρνάβαζος*, Justi, p. 92. (Moulton does not allow that *δηνο-* could be from *daēnā*.)
- Ἰωδαβόχθης, II. A 12, B 17: first part perhaps Skt. *yudh*, 'battle' (*ὑσμίνη*), Moulton; *-buxt*, cf. *Ješūbuxt* = 'redeemed of Jesus,' Justi, p. 149.
- Κλεοπάτρα, II. AB 2: the only Greek name in the documents.
- Μαιφρόρης, I. A 8, B 9: probably Semitic, *maphōrāš*, 'separated'; for the termination cf. *מפרץ* = *Ἀσσούηρος*, E. J. Thomas.
- Μαρζυ . . ., I. B 31: cf. *Marzpan* (Arab. *Marzubān*), *Marzūī*, Justi, pp. 197, 198.

⁶⁶ v. C. Salemann, Geiger u. Kuhn, *Grundr.* d. *Iran. Phil.* I. i. p. 261.

^{66a} Not very likely because *αὐτῷ* and *αὐτὸν* follow, but cf. *P. Lips.* 2, 1. 10.

- Μιραβανδάκης, II. A 12, B 17: 'Mithra's servant'; cf. **Mihrbandag*, *Mihrevandak*, Justi, pp. 205, 214.
- Μειριδάτης, I. A 29, B 31; Μιραδάτης, II. A 12, B 17: 'Mithra's gift,' for form see below.
- Οἰπάτης, I. A 9, B 10: cf. Avesta, *hu-pātu*, 'well-protected,' Moulton: or *vohu*, 'good,' *pāti*, 'lord'; cf. Οἰβάρης = ἀγαθάγγελος, Justi, p. 232.
- Ὀλεννειείρη, I. AB 2.
- Ὀρκαδάτης, I. A 28: *vahrka*, 'wolf,' Carnoy; 'wolf's gift' is quite conceivable.
- Ὀρο . . . , I. B 30. Justi, pp. 234–236, gives twelve names so beginning.
- Ὀχοβάγης, I. A 29, B 31: *vohu* = εὖ (cf. *Wahuka* = Ὠχος, Justi, p. 431, and Ὀχωδιάκος = εὐμεγέθης, Vs. Miller, *Bull. Com. Imp. Arch.*, St. P., xlvii. p. 87) and *bagā*, 'god.'
- Σιάκη, I. AB 2: cf. Σιανίκος, Latyshev, *I.o.s.P.E.* ii. 447; Pahlavi, *siyakum*, thirty-first, E. J. Thomas.
- Συκυνήματος, I. B 31: (gen. from nom. *Συκύνημα*?).
- Σωβήνης, I. A 8, B 9: perhaps Semitic; cf. *Šebna*, Isaiah xxxvi. 3, LXX. Σοβνās, 'tender youth,' E. J. Thomas.
- Τιγράνης, I. AB 4: *tigra*, 'swift.'
- Ῥστοβώγης, I. A 29: *višta*, 'warrior,' Justi, p. 373, or participle from *vaēd*¹, 'knowing,' or *vaēd*², 'having found' (Bartholomae, cols. 1314, 1318), *bāga*, 'lot'; *ā* is often pronounced *ō* in Persian and Ossetic. Carnoy says '*vahistobāga*, with best lot or fate.'
- Φραάτης, I. B 31: *frahāta*, 'understanding,' Justi, p. 101; Hübschmann, *Armenische Grammatik*, I. p. 48, *fraḍāta* (cp. Φραδάτης in Memnon), 'furthered'; *hāta*, perf. pass. part. of *han* occurs in Gāthīc = 'meritus,' so *frahāta* would be 'promeritus,' Moulton.
- Χοσστρόης, I. A 28, B 30 = *Haosravah*, 'famous': this is the first case of its being written in Greek with X instead of Ὀσρόης (why not Ὀσρόης?): v. Justi, s.v. *Husruwañh*, p. 134.

The general character of these names is clearly Iranian: the only exceptions are those of the conveyors in I., Baraces and Sobenes with their father Maiphorres, and the queens in II., Cleopatra the Greek, and Olennieire, Baseirta, and Bistheibanaps of which the explanations cannot be called convincing. Did Phraates IV. seek his wives among the mixed peoples who were pressing upon his eastern frontier as well as from Greece and Italy?

Of these Iranian names some we must leave to students of Iranian, others are familiar to us all, Chosstroes, Tigranes, Phraates, Arsaces, Miradates. The particular form in which this last and its cognate Mirabandaces appear offers as much interest as almost any point that arises from the study of the documents. They are the first recorded instances of a sound change which most characteristically marks off Middle Persian from Avestic and Old Persian, the change of *θr* to *hr* between vowels.⁶⁷

⁶⁷ v. C. Salemann, in Geiger u. Kuhn, *Grundr. d. Iran. Phil.* I. 1. p. 261.

That change would not have been expressed in writing unless it was quite general in pronunciation; tradition kept the form Mithradates in use for centuries, but the first example hitherto known of the name in its later form was given by Tacitus⁶⁸ who mentions Meherdates as a candidate for the Parthian throne in A.D. 47, 135 years later than I. This fact has naturally aroused the attention of Professor Moulton as it leaves so much the less time for the completion of the sound changes which took place subsequent to Zoroaster but within the Old Persian period, and strengthens the argument for the prophet's early date.⁶⁹ Of the *i* vowel in the middle instead of *a*, there are earlier examples extant.⁷⁰

As to the rendering of Iranian sounds: *œ* evidently sounded like *ε*, but it is not probable that *œ* or *υ* had come down to the same, nor does it seem to me as if *β* was yet sounding as *υ*. Iranian *h* is left unexpressed, unless *χ* represents it in 'Οχοβάγης; *a* represents the dull vowel *ə* as well as *ā* and *ǎ*. There is, as it seems, some inconsistency in the rendering of *υ*, but philologists expect too much consistency and shut their eyes to the way in which we render, *e.g.*, Russian names.⁷¹ Greek could of course do nothing with *š*. As the names shew Middle Iranian forms, probably Document III. (if Iranian at all) is the earliest piece of Middle Iranian extant, if only it could be read.

LEGAL TRANSACTIONS.

All these matters of kings and queens, dates and names, were but of very little importance to the people who had our documents written, and they would have been much surprised to find that their transactions, to record which the documents came into being, are now the least interesting part of them. Further, the nature of the transactions is not quite clear.

One reason for this is that we have hardly any material for satisfactory comparison. Dr. Hunt writes 'there is a strong family likeness combined with differences in detail as compared with similar documents from Egypt,' but my search for analogies amid the great mass of Egyptian material has shewn me that the differences are greater than I had supposed at first. To the layman legal documents concerned with more or less similar transactions have all of them what I should call a family likeness, but as we can see that formulae varied in different districts within Egypt,⁷² it is not surprising that our documents should be unlike in detail.

I hoped that the formulae of cuneiform documents would offer some help in reconstituting the intentions of the writers, but Dr. L. W. King

⁶⁸ *Ann.* xi. 10.

⁶⁹ J. H. Moulton, *Early Zoroastrianism*, 1914, p. 233, and addenda facing p. xviii.

⁷⁰ Dittenberger, *O.G.I.* 345 (B.C. 92/1), l. 28 and note *ad loc.*

⁷¹ For a similar problem, cf. H. Kern, 'Zur Gesch. d. Ausspr. des Griechischen: Widergabe Indischer Wörter bei gr. Autoren,'

ΕΛΛΑΣ, Leiden, 1889. He shows that the traditional Greek accentuation does not represent the Indian, *e.g.* Παλίβοθρα, Pataliputra; Βαρύγασα, Bharukácsa; so my accentuation of these names is in accordance with meaningless custom.

⁷² Mitteis, *Grundzüge d. Papyruskunde*, II. i. p. 76, n. 2.

assures me that there is nothing specifically Babylonian about ours. The deeds published by Professor A. T. Clay (*op. cit.*) are not far off in point of time but offer no analogies save what are inherent in the nature of the case: I do cite one or two resemblances in detail, but do not insist upon them. Our documents must therefore serve to illustrate each other even though the transactions recorded are not exactly similar: I have said that I believe them to refer to the same property, but that Dr. Hunt is not inclined to agree.

We want all the illustration we can get because both documents are most carelessly put together. It cannot be said that the scribes were ignorant of Greek: the writer of I. knew his business quite well, that of II. might have made less difficulties for us if he had not been so much at home in Greek writing that he hardly stayed to form the letters. But they seem in both cases to have transcribed a rough copy full of badly indicated insertions and erasures⁷³ and probably made up of phrases drawn from older deeds and not sufficiently adapted to the grammatical requirements of the case. Hence omissions, repetitions and anacolutha which leave us in actual doubt as to the intentions of the contracting parties.

As to the form of the documents, the first point is their being executed in duplicate. This device of 'close' and 'patent' versions (often called *scriptura interior* and *scriptura exterior*) is very ancient. It is the principle of the Akkadian and Babylonian case-tablets in which the original deed is covered with a fresh layer of clay to receive an abstract of its tenor and the seals of the witnesses. Similar procedure was in use among the Jews: our documents are so well illustrated by a passage in Jeremiah (xxxii. 9-14), pointed out by my sister, that I give it here after the Revised Version. 'And I bought the field that was in Anathoth of Hanamel my uncle's son, and weighed him the money, even seventeen shekels of silver. And I subscribed the deed (lit. writing, סֵפֶר, βιβλίον), and sealed it, and called witnesses, and weighed him the money in the balances. So I took the deed of the purchase [both that] which was sealed, [according to the law and custom (*Marg. or 'containing the terms and conditions'*), and that which was open]; and I delivered the deed of the purchase unto Baruch, the son of Neriah, the son of Mahseiah, in the presence of Hanamel mine uncle's son, and in the presence of the witnesses that subscribed the deed of the purchase, before all the Jews that sat in the court of the guard. And I charged Baruch before them saying, Thus saith the LORD of Hosts, the God of Israel: Take [these deeds,] this deed of the purchase [both that which is sealed] and this deed which is open (LXX. τὸ ἀνεγνωσμένον, perhaps for ἀνεωργμένον), and put them (LXX. αὐτό) in an earthen vessel: that they may continue many days.' I have enclosed in square brackets the words which are omitted in the LXX.; it looks as if the Greek text had been changed when the practice of making duplicates became unfamiliar.

It had been common enough in Egypt and many examples exist, both

⁷³ e.g. Schubart, *Pap. Gr. Berol.* 13, 13 B.C.

Demotic and Greek: the oldest Greek contract known, the marriage contract of Heracleides and Demetria (311-310 B.C.) and the deeds concerning Elaphium a few years later, all three from Elephantine, have much the same arrangement as ours: the older practice was to give the deeds into the charge of a *συγγραφοφύλαξ* who is named as such in the deed, acknowledges the receipt of it, and sets his seal first among the witnesses, usually six in number. In the passage from Jeremiah, Baruch is the *συγγραφοφύλαξ*: he is a private person, not an official, and so likewise in Egypt.⁷⁴

In the Elephantine papyri the mechanical arrangement differs in so far that, the papyrus being very broad, the top version is half cut off from the lower and doubled over with a vertical fold, so the roll is only half as long and makes a stronger packet. The ordinary arrangement is like ours, the papyrus being of a moderate breadth.⁷⁵ The string is supplied by a fibre stripped from the papyrus itself.⁷⁶ The device of a full duplicate is used for very various documents, sales, marriage-contracts, receipts, tax-receipts, declarations, verdicts and oaths,⁷⁷ but the fact that the close version would probably never be seen by mortal eye produced its natural result, either that it was written illegibly (in *P. Amh.* 42 A the close version is the most cursive document its editors had ever seen) or it becomes reduced to an abstract written above the patent version;⁷⁸ Wilcken (*loc. cit.*) shews that from the middle of the third century B.C. practically the same classes of documents are thus shortened down as had been written in full. Moreover, for greater security the execution of the deed is performed before an official and he it is that writes the close version or abstract. In the case of the agoranomus in the Thebaid the office fashion was to use broad papyrus, so the abstract forms a narrow first column⁷⁹ folded down and secured with one official seal. But once deeds were brought to a public office and registered the need for any duplication vanished and the device tended to go out of use. Still it is interesting to note that in the case of the Reinach Papyri, all from the same muniment room, some, dated in the city of Hermupolis where there was an agoranomus, are in the form that he was accustomed to prescribe, while others executed in the little village of Tenis were really delivered to the *συγγραφοφύλαξ*.⁸⁰ It is possible therefore that in Babylonia and Media

⁷⁴ *B.G.U. Sonderheft*, 'Elephantine Papyri,' ed. O. Rubensohn, Nos. 1-4, esp. pp. 5-8; W. Schubart, *Pap. Gr. Berol.* 2, 4a; Wilcken, *Archiv f. Papyrusforschung*, v. pp. 200-207; *New Pal. Soc.* ii. 26.

⁷⁵ See illustrations of *P. Amh.* 42. Pl. VIII.; *P. Hibeh*, 84a, Pl. IX.

⁷⁶ Ibscher, *Arch. f. Pap.* v. p. 192.

⁷⁷ Wilcken, *loc. cit.* p. 204; the latest is 131 B.C.

⁷⁸ e.g. *P. Tebt.* i. 105 (103 B.C.), Pl. VIII.

⁷⁹ *P. Lond.* 879, 1204, 881, 882, 1206, 1207, 1208, 1209 (iii. Pl. IV.-XI.), 123-88 B.C.: *B.G.U.* iii. 993 = Schubart, *op. cit.* 9.

⁸⁰ Wilcken, *Arch. f. Pap.* iii. p. 523; compare *P. Rein.* 26 (Mitteis, *Grundz.* II. ii. No. 164) with *P. Rein.* 14 and 20 (Mitteis, *ib.* 132, 133): dates 104, 110, and 108 B.C. For duplicate deeds in general see also Mitteis, *op. cit.* II. i. pp. 77, 78; P. M. Meyer, *Klio*, vi. (1906), pp. 452-454; Gerhard, *Philologus*, lxxiii. (1904), pp. 500-503. The last cases of a *συγγραφοφύλαξ* or something like it are *P. Tebt.* 382 (31 B.C.) and 386 (12 B.C.); by that time the duplicate writing had gone out of use, Wilcken, *Arch. f. Pap.* v. pp. 240, 241; Mitteis, *op. cit.* II. i. p. 54.

registration had superseded the duplicate execution in the towns (there was a Greek ἀγορανόμος at Babylon, *v. infra*, p. 60 n. 135), but had not penetrated into out-of-the-way places.

Our documents may seem archaic when compared to Egyptian usage of the same date, but are on much the same stage of development as Latin documents, the receipts from Pompeii of the following century, the Dacian tablets of the second century A.D. and also the *Tabulae honestae missionis* of even the third century, all of which exemplify the same principle, though of course the arrangements for sealing up tablets cannot be quite the same as for parchments.

It has already been mentioned that in the case of both our documents the close and the patent versions do not exactly tally: these divergences have been exhibited in printing the translations. Some are due to carelessness, others to a beginning of the process whereby in Egypt the close version was reduced to a mere abstract, others apparently to an alteration in the terms of the contract arrived at after the close version had been sealed down.

In the case of II. the differences are obviously due to carelessness except that the obligations of the outside guarantor are not put into the close version. In I., besides blunders, one of which affects such an important matter as the actual name of the property concerned, and silence in the close version (like that in II. A) as to the outside sureties, we have a hasty addition in A of the eatables and dues, which does not quite tally with the corresponding addition to B, and a further provision in B about the vendor handing over the stock of must, etc., which does not occur in A at all. It looks as if this addition might have some connexion with the astonishing change of the price τριάκοντα δραχμάς to τεσσαράκοντα in B, since this is too obvious to be fraudulent. It was perhaps to ratify these changes, which after all concerned things of only momentary importance, not the buyer's permanent right to the land, that the extra witnesses were called in and the definite sureties appointed. It is very strange that the conditions as to irrigation should be more precise in A than in B; no doubt everyone knew at the time what was τὸ ἐπιβάλλον μέρος and in case of future difficulty A could be referred to.

As regards their general composition our documents, though lacking a συγγραφοφύλαξ, find their nearest Egyptian counterpart in what Mitteis⁸¹ calls the syngraphophylax-deed, or, as its real name seems to have been, συγγραφή ἐξαμάτυρος, which in its latest phase had no syngraphophylax. This like ours is a private document, objectively expressed, beginning with the date and ending with the names of the witnesses, and in early times written in full duplicate with one version sealed up by the syngraphophylax and witnesses and with each seal identified by its owner's name. This last detail is absent in our case; the writing at the back of I. A cannot have been visible when it was done up and I cannot guess at its purpose. As in the

⁸¹ *Grundz.* II. i. pp. 53-55.

very earliest Greek deeds from Egypt, we have no mention of any registration and no duty payable to the state, such as Graeco-Egyptian officialdom soon introduced upon the native model. In these matters our deeds are true to early Greek practice, though registration was independently developed in various Greek states.

Both documents claim to be sales⁸² though perhaps not of fee simple (see below), but the forms are not very like other forms of sale for real property. In Egypt the native law required two separate documents, one the sale including the acknowledgment by the seller that the price has been paid and his warranty of the buyer's title, and the other the release or conveyance of possession from the seller to the buyer. The Greeks adopted the practice of the country and executed two documents, the *ὥνῃ* or *πράσις*, purely objective in form and bilateral (*ἀπέδοτο* A, *ἐπρίατο* B) and the *ἀποστασίον* (*συγγραφή*) sometimes called *καταγραφή* or *παραχώρησις*, unilateral in the name of the seller who *ὁμολογεῖ ἀφίστασθαι*; ⁸³ this is a transition to the ordinary subjective *ὁμολογία*. At the end of the Ptolemaic period they began to combine the constituents of the two documents into one and this became usual in Roman times, the form being rather that of the *παραχώρησις*, (*ὁμολογεῖ . . . πεπρακέναι*).⁸⁴ This is on the whole the nearest to our documents with their *ἐξωμολογήσατο καὶ συνεγράψατο*, but our draftsmen have not been able to keep up the unilateral form and yet get the obligations of both parties in, so that they fall into great difficulties and anacolutha and finally continue in the purely objective form and change about from seller to buyer in the most haphazard fashion. The purely objective form seems to have been the earliest in Greece and so it was in Babylonia, but in the latter the whole arrangement was different, usually beginning with the description of the property followed by the names of the parties, the terms of the agreement, the names of the witnesses and the scribe's subscription, with statement of his fee, and ending up with the date.⁸⁵ Sometimes the name of the vendor stands first.⁸⁶

Before we come to the purport of the documents all possible effort must be made to eliminate the errors of the scribes and to present the texts more or less as they were intended: the interlineations and corrections on each rough copy were evidently so confusedly made that the scribe took them in different ways when writing out the two fair copies; so a comparison of these sometimes offers a chance to divine a consistent text. In other cases he made improvements as he went along, but occasionally the alterations were so carelessly made that we can as it were follow their course.

In I. for instance we can clearly see that ll. A B 8-11 must have run something like . . . *ἐξωμολογήσατο καὶ συνεγράψατο* (the singular verbs

⁸² See M. J. Bry, *La Vente dans les Papyrus Gréco-Égyptiens*, Paris, 1909, and Mitteis, *op. cit.* II. i. pp. 167-183.

⁸³ e.g. Mitteis, II. ii. 252, which has both on one sheet.

⁸⁴ e.g. *P. Lond.* 154 (ii. p. 178) Mitteis,

255, 63 A.D., a document which presents us with many small analogies.

⁸⁵ e.g. F. E. Peiser, *Babylonische Verträge* Berlin, 1890, p. 131, No. xciv.

⁸⁶ A. T. Clay, *op. cit.* p. 25, No. 2 (No. 23).

are probably taken bodily from another document, but they may imply that one of the brothers, perhaps Baraces who is not the true vendor, is an insertion: so κατέστησεν in B 29) B. καὶ Σ., οἱ τοῦ Μ. υἱοί, εἰληφέναι παρὰ Γαθάκον . . . τειμήν, καὶ δεδωκέναι ἄμπελον τὴν οὖσαν κ.τ.λ., as is shewn by the accusative ἐπονομαζομένην: one cannot tell whether it was by an oversight or in an attempt at conciseness that the scribe left out καὶ δεδωκέναι and then put in the genitives.

As between Dadbakanras and Ganzace it impossible to judge.

The next two lines 11, 12 are more difficult to restore: it looks as if the intention had been to substitute τὸ ἐπιβάλλον αὐτῷ μέρος for an original τὸ ἴδιον μέρος and the latter had not been effectively crossed out, while the scribe added παρὰ τῶν συνκλήρων as he wrote A: so the next words seem to have been συν ἀκροδρύοις κ.τ.λ., confusedly altered into μετὰ ὕδατος καὶ ἀκροδρύοις and badly copied in B. But it is possible that τὸ ἐπιβάλλον αὐτῷ μέρος has to do with this addition of ὕδατος and is not a synonym for τὸ ἴδιον μέρος (cf. B 28).

In ll. 14, 15 the scribe made the phrase in A τὸ ἐν μέρος clearer by substituting τὸ ἡμῖν in B.

In ll. 16, 17 the intention seems to have been to shift εἰς τὸν ἅπαντα χρόνον from one place to another and so B has it in both, while τὴν ἀργυρώνητον ἄμπελον is an addition made in writing out A.

In l. 19 μηδὲ τῷ ἀδελφῷ αὐτοῦ, which comes in different places in A and B, is probably an insertion as it is not quite in common form. The next line and a half seem amplified in writing out B.

The differences from line 27 on have been already discussed; they represent a real change in the transaction as registered in the two versions.

The text of II. A and B is fairly straightforward and offers no important divergences until we get to l. 9, nor would the subsequent part of A awake much suspicion by itself; there is only the very harsh plural τελέσουσι (sc. Δήνης καὶ τὰ ἔγγονα αὐτοῦ, cf. I. A 17) with another harsh change of subject in ὑπέσχετο referring apparently to the vendor, and the nominative Ἀρθασθάτης, a mere slip. But as it stands in B 9, 10 the sentence about the dues and presents of food has suffered hopeless dislocation, κρεῖθῶν δύο has fallen right out, δύο κοτύλας has got into the next line, σκέλος δραχμὴν μίαν comes in a different place, the word σκέλος being repeated, and finally there is an insertion of ἐμβάθρου δραχμὴν. This confusion makes it impossible to be sure what the writer's intention was, e.g., whether κατ' ἐνιαυτὸν applies to all the things which follow in A or to σκέλος alone, and whether ἐμβάθρου δραχμὴν ought really to come after it. I am inclined to think that κατ' ἐνιαυτὸν was only meant to apply to σκέλος and it was intended to make this clear in B by putting κατ' ἐνιαυτὸν σκέλος δραχμὴν μίαν last and inserting ἐμβάθρου δραχμὴν at the beginning, but that it was so badly indicated that confusion resulted. The new clauses in B 10-12 about the outside guarantor have equally miscarried: a measure of the writer's carelessness is seen in βεβαι<ώσειν> absolutely unfinished: the next

words τὰς δύο κοτύλας of course ought to have come in two lines further back, and have apparently displaced τὴν ἀμπελον, and προγεγραμμένην has been altered to agree.

Considering the extreme carelessness shewn in B Ἀρθασθάτης is probably more correct than Ἀσθάτης.

In the next clause the negatives μηδενί, μηδεμίᾳ are strictly speaking quite out of place and there is nothing to account for the infinitives εἶναι and ἐκτείσειν; I think that what looks like a redundant μηδενί is the only word left from a clause something like ὑπέσχοντο δὲ μηδὲν τῶν προγεγραμμένων ἀθετήσιν τρόπον μηδενί. It is impossible to translate a text in such a state.

The purport of I., even after such emendations as we can arrive at, is not quite certain. The vineyard Dadbakanras (or Ganzace) is described as sold (ἀργυρώνητος) by Baraces and Sobenes to Gathaces for thirty (forty) drachmae, but Baraces still retains half of it, and it appears as if it were only Sobenes who parted with his half.⁸⁷ Further, Gathaces and his descendants are under an obligation to pay in full certain burdens on the property,⁸⁸ to look after the vineyard and to keep it properly tied up (ἐπαφος, see below), so he does not get the fee simple even of his own half, and I am not sure that he does not have to keep Baraces's half as well and pay the dues for it, and it is just possible that we have some kind of *métayer* arrangement.

The general purport of II. is more evident: Aspomaces sells to Gathaces the vineyard Dadbakabag with all its appurtenances for 55 drachmae (of which he acknowledges the receipt) reserving to himself a yearly payment, probably a mere acknowledgment, of one drachma and also a fee of one drachma and certain gifts in kind, but all these may possibly have been rendered yearly. Though the vineyard is spoken of as sold (πεπραμμένης, B 13) the transaction is rather of the nature of *emphyteusis*, the yearly payment shewing that it could not be a conveyance of the fee simple.

Each document presupposes a παλαιὰ συγγραφή, very likely the same for both, in which full particulars are to be found as to abutments, water-rights, and dues payable from the land. This παλαιὰ συγγραφή has been well explained by Mr. Haussoullier as the original grant made by the king to a number of σύνκληροι, perhaps veterans or other servants of the state; this would be the foundation of all subsequent titles and would give the exact dimensions of the various lots, the rent-charges which the state exacted, the mutual rights of the σύνκληροι and regulations as to the apportionment of the water.⁸⁹

⁸⁷ Dr. Preisigke first pointed this out in a letter to Mr. Bell. We had formerly been inclined to take it as a hereditary lease or *emphyteusis*.

⁸⁸ τελῶντες just might be meant to refer not to G. and his ἑγγονα, but to G. and B.

⁸⁹ Cf. the royal grant to Mnesimachus pre-

supposed in the mortgage, *A.J.A.* 2nd series, xvi. (1912), W. H. Buckler, D. M. Robinson, 'Greek Inscriptions from Sardes I.' The παλαιὰ συγγραφή is clearly not merely the first of the two deeds which constituted the Graeco-Egyptian double sale.

These being the main lines of explanation, it remains to note a few special points and words in the operative clauses of the documents, the initial protocol and the names of the witnesses having been already discussed.

ἐπὶ τῶν ὑπογεγραμμένων μαρτύρων, I. AB 7, II. AB 4. This anticipation of the witnesses does not seem to come in the Egyptian documents.

ἐξωμολόγησατο καὶ συνεγράψατο, I. AB 8, II. AB 4: cf. *P. Eleph.* 2, l. 1, entitled *συγγραφή καὶ ὁμολογία*,⁹⁰ but neither verb is very common in papyri; in *P. Hibeh*, i. 30 (d), l. 18 and *Tebt.* i. 183, ἐξωμολογέσθαι is used of owing up to a debt: but cf. Luke xxii. 6, Judas ἐξωμολόγησε to the priests' offer of money: *συγγράφεσθαι* in Grenfell, *Rev. Laws*, 20, l. 14 and *passim*; *P. Grenf.* ii. 16; *P. Tebt.* i. 5, ix. l. 215; *P. Lond.* 880, l. 9 (iii. p. 8); *B.G.U.* iii. 993, l. 10, ἔκοντες συνεγράψαντο ἀπομεμερικέναι.

Note in both deeds the absence of the elaborate identification marks usual in Egypt.

ἄμπελος, I. A 10, B 11, etc., II. A 6, B 7, etc., collective for ἀμπελών, e.g. Grenf. *Rev. Laws*, col. 36, l. 16; *P. Tebt.* i. 64 a, l. 2: *B.G.U.* i. 33, l. 4. πλείω δύο ὑδάτων μὴ πότιζε τὴν ἄμπελον is an easy transition.

The absence of all description and abutments of the vineyard may be explained as in II. by these particulars being laid down in the παλαιὰ συγγραφή: not having to look into the details the scribe even made a mistake in the name, for Δαδβακανράς and Γανζακή cannot both be right.

τὸ ἐπιβάλλον μέρος, A 12, B 12, 28, cf. Luke xv. 12.

ἀκροδρύοις, I. AB 13; Theophrastus, *Hist. Plant.* IV. iv. 11 seems to include the vine and olive in ἀκρόδρυα, but to exclude them in II. v. 7, where the word means hardier trees such as apples.

τοῖς συνκύρουσιν, I. AB 14, the ordinary form in inscrr. and papyri is συγκύρω, not συγκυρέω, v. Ditt. *O.G.I.* 65.

καὶ μὴ ἐξέστω κ.τ.λ., I. AB 19, these warranty clauses are very much in common form.⁹¹

μηθενί, I. A 20, elsewhere always μηδεῖς.

ὑπὲρ αὐτῶν, I. A 20, 'their agents,' improved in B 20 into με[τα]λαμβάνοντι π[αρ'] αὐτῶν, cf. II. A 11 τοὺς μεταλα[μβάνοντ]ας παρ' αὐτοῦ = 'their successors or those deriving title from them,' common in Polybius, cf. *P. Tebt.* i. 61 a, l. 20, and *passim*.

ἐγβαλλομένου, I. AB 22, the middle seems to make the case more general, cf. ἐξάξονται, II. B 12.

καταστάς, I. A 22, B 23, 'having taken up the position (of a warrantor),' cf. II. A 12, κατέστησεν, absolutely 'appointed as surety,' more clearly in I. B 29, ἔγγυον . . . κατέστησεν, II. B 10, βεβαιωτὴν κατέστησεν.

διεξάξῃ, A 22, B 23 (cf. II. B 12, ἐξάξονται) apparently 'will obtain full eviction (of the claimant against Gathaces)': true in *P. Tebt.* i. 5, ix. l. 219, διεξάγεσθαι = 'be decided quickly,' *ib.* 8, l. 11 'be put out of hand,' cf. Polyb. V. i. 5, and Moulton suggests 'see the matter through': but the use corres-

⁹⁰ Cf. *P. Petr.* iii. 21 (b). l. 5 (p. 44), συγγραφὴν ὁμολογίας.

⁹¹ e.g. *P. Eleph.* 3: Ad. Berger, *Strafklauseln in den Papyrusurkunden*, *passim*

ponds to *ἐξάξονται*, which must mean 'evict,' cf. *B.G.U.* iii. 1006, *ἐξαγαγεῖν τὴν γυναῖκα ἐκ τῆς οἰκίας μου*; for the middle cf. *ἐγβαλλομένον*. The commonest meaning of *διεξάγειν* is 'to carry on someone else's work.'

καθαρὰ ποιήση, AB 23, not merely as I thought 'act fairly,' but, as Mr. Bell tells me, a technical expression 'acquit,' like the mediaeval 'quietum facere'; cf. *καθαροποιέω* in Byzantine documents, *P. Mon.* 4, l. 31 *sqq.*, *τὸν δὲ ἐπελευσόμενον ὑμῖν ἢ καὶ ἀντιποιησόμενον ἐκστήσω καὶ καθαροποιήσω ἰδίῳις μου ἀναλώμασι· εἰ δὲ ἀσθενήσαιμι περὶ τὴν τούτου καθαροποίησιν, κ.τ.λ.*

ἄκυρος, I. AB 23, of a person 'having lost his rights' is classical Greek, but Moulton tells me he has not met it in Hellenistic, where it is only 'invalid' as in II. B 14. This provision is usual from the earliest times, *e.g.* *P. Eleph.* 3 (285 B.C.), *ἡ ἔφοδος ἄκυρος ἔστω*. Bell would translate, 'his attempt shall be invalid,' but to supply *ἔφοδος* seems very harsh.

καὶ προσαποτίσει ἣν ἔλαβεν τειμὴν διπλὴν καὶ ἄλλας ἐπιτίμους δραχμὰς Σ' καὶ τῷ βασιλεῖ τὰς ἴσας, I. A 23–25, B 24–25, cf. II. B 15–16, *καὶ τὸν ἀθετήσαντα ἐκτίσειν . . . δραχμὰς διακοσίας καὶ εἰς τὸ βασιλικὸν τὰς ἴσας*. The enormously high proportion the total penalties (*ἐπίτιμον* is the regular word up to Byzantine times⁹²) bear to the original price (60 or 80 dr. + 200 fine +, probably, 200 to the king : 30 or 40 dr.), fifteen or twelve-fold, seems to me to be due to the price being merely nominal, a large part of the consideration being the labour that Gathaces was bound to put into the vineyard. It is however noticeable that even in II. we have in all a more than seven-fold penalty. Possibly native custom came in here; in a sale translated by A. T. Clay,^{92a} the penalty is twelve-fold, all paid to the buyer if she is evicted. The high proportion that the penalty paid to the other party and the penalty paid to the state bear to the price shews also that the object was to make it very disadvantageous to the party wishing to break the bargain; in Roman law the penalty was more moderate, usually the double of the price, and was rather regarded as compensation: but the *poena dupli* is by no means exclusively Roman; it is found in Babylonian documents, in the laws of Gortyn and in other Greek inscriptions,⁹³ but not in Ptolemaic papyri. Berger (p. 128) says it comes in about 100 A.D.: it also occurs in the Palmyrene tariff (137 A.D.).⁹⁴ It is such a natural proportion to fix as a deterrent that one dare not say that it is a Greek element in I.: yet it does look like a proportion still holding its place in the text, although now become a trifle in comparison with the enormous penalties beside it. There is no mention of compensation as such, the *βλάβη καὶ δαπάνηματα* or *ἀνηλωμένα*.⁹⁵ The payment to the king is usual in Ptolemaic papyri, and in those of Roman date it is made *εἰς τὸ δημόσιον*: the advantage of bringing the state in to sanction the bargain is obvious and we find the same device in mediaeval deeds.

⁹² Berger, *op. cit.* pp. 4–10.

^{92a} *op. cit.* p. 27, No. 2 (No. 23).

⁹³ Mitteis, *Reichsrecht u. Volksrecht*, p. 511; Gortyn, *Rec. d. Inscr. Jur. Gr.* i. p. 372, vi. § 38, l. 42; Heraclea (Lucania), *ib.* p. 202, ll. 109

sqq.; Athens, *ib.* p. 242, l. 18; Sardes, c. 300 B.C., *A.J.A.* xvi. p. 65.

⁹⁴ Ditt. *O.G.I.* 629, ll. 102, 121.

⁹⁵ Berger, pp. 26, 133; *A.J.A. loc. cit.* p. 80.

On the whole the nearest approach to our form is in *B.G.U.* i. 350, Trajan's reign, l. 15, ἂν τι δ' αὐτῶν προγεγραμμένων παρασυγγραφῇσι ὁ ὁμολογῶν ἢ οἱ ὑπὲρ αὐτοῦ προσαποτεισάτωι τῇ Τανεφρέμμι καὶ τὰ ἀνηλωμένα διπλᾶ καὶ ἦν τε εἴληφεν τιμὴν διπλὴν καὶ ἐπίτιμον ἀργυρίου δραχμὰς διακοσίας πεντήκοντα καὶ εἰς τὸ δημόσιον τὰς ἴσας καὶ μηδὲν ἦσσαν τὰ διομολογῆμενα κύρια εἶναι.⁹⁶ The differences are that we have no ἀνηλωμένα, that as the price in the Egyptian document was 500 drachmas, the penalties of 250 drachmas each to the purchaser and to the state together only make up the price once, and that the last clause of the document quoted has no counterpart in either I. or II. in which, though no doubt implied, it is not expressed that the contract is still binding after the fine has been incurred and paid.⁹⁷

These same penalties except perhaps the *duplum pretii* fall on Gathaces in I. if he neglect the vineyard (apparently the whole vineyard) and do not make it ἔπαφον, A 26, B 27. This word is new and difficult, but the reading is quite certain. It ought to be the opposite of ἀνέπαφος which often occurs in sales of land⁹⁸ or in manumissions⁹⁹ and sales of slaves¹⁰⁰ and evidently means 'subject to no claim.' According to this ἔπαφος would be 'duly subject to claim,' i.e., 'duly acknowledging the original claims of Baraces and Sobenes by rent or service,' but it seems more likely that it is a viticultural term, and Moulton suggests 'tied up,' i.e., the vines tied up to the trees or stakes. Mitteis in his letter says, 'ἀνέπαφος . . . heist unberührt, also ἔπαφον ποιεῖν, in Kultur bringen, Gegensatz ψειλόφυτον.' That would be giving a meaning of *manus iniectio* in a very literal sense; whatever the exact meaning, Gathaces has to work the vineyard properly: that this is a strange provision in what purports to be a sale has been already remarked, but if a man lets another in to share a vineyard it is essential to him that his new partner work. Apart from Baraces it is probable that the σύνκληροι who shared the water had an interest in the vineyard being properly kept up.

καὶ τὸ ὕδωρ κ.τ.λ., I. AB 27. B only sums up the matter of the water, but A means to be more explicit: παρὰ ὀγδόην ἡμέρας τὸ ἡμῖς καὶ [τῆς εἰ]παγωγῆς νυκτὸς τὸ ἡμῖς; whatever the word be, ἐπαγωγῆς

⁹⁶ Berger, p. 128. *C.P.R.* 220, is very similar.

⁹⁷ Berger, p. 82.

⁹⁸ e.g. Mitteis, *Grundz.* II. ii. 253, l. 12; *C.P.R.* 220, l. 11.

⁹⁹ e.g. *I.O.S.P.E.* ii. 54, l. 12; 400, l. 11, Panticapaeum and Phanagoria, corresponding to ἀνέπαπτον at Delphi, Ditt. *Syll.*² 861, l. 8; 862, l. 11.

¹⁰⁰ e.g. *B.G.U.* i. 193 II. l. 19, iii. 987, l. 9 (Mitteis, 268, 269): in these, and in e.g. *P. Lond.* 251 (ii. p. 317), l. 15; *B.G.U.* iii. 887, we have slaves warranted free of ἐπαφή; Mitteis, *P. Lips.* 4, l. 20, proposes 'leprosy' as its meaning since it always goes with ἐπὶ νόσος

and the like; cf. his summary, *Grundz.* II. i. p. 194, n. 2. In a Strassburg papy. (Preisigke, *Arch. f. Pap.* iii. p. 419, l. 30) this is very clear, but the document is 6th cent. and verbose. Berger, *op. cit.* p. 140, n. 4, makes it equal *manus iniectio* following Kubler, *Zt. d. Savigny-Stiftung (Rom.)*, xxix. (1908), p. 474-479, in spite of a medical reply by Sudhoff, *ib.* xxx. (1909), p. 406-409. Mitteis, *loc. cit.*, remarks that ἐπαφή may have more than one meaning, and our document goes to confirm this. Heerwerden s.v. proposes 'madness due to demoniacal possession,' as he thinks no one could fail to spot leprosy, but Sudhoff says the early stages may well be overlooked.

or *καταγωγῆς*, it must be a 'letting in of the water.' What are we to supply with *ὀγδόην*, *ὥραν* or *ἡμέραν*, and what is the exact use of *παρά*? I understand that the modern custom is to take the water on one day of the week, so suggest that *ἡμέραν* is to be understood, perhaps the following *ἡμέρας* crowded it out: the meaning would be every eighth, or perhaps by our reckoning, seventh day; cf. *παρὰ μῆνα τρίτον*.¹⁰¹ The water probably came from a *kanat*, a stream conducted underground to save it from evaporation. The vineyard got a turn at the water every eighth day apparently for twenty-four hours, and Baraces was to share the turn fairly with Gathaces.¹⁰² In II. we merely have *ὑδασι τοῖς ὑπάρχουσι μετὰ τῶν συνκλήρων*.

I. A 28, 29 mentions three witnesses Chosstroes, Apaces, and Miridates: in B 30, 31 the witnesses are Denobazus, Miridates, Phrahates and Marzu . . . while Chosstroes and Apaces are taken out of the class of witnesses by being appointed *ἔγγυος καὶ συνέγδοτος*: by whom is not clear owing to a gap in the parchment, but, as Dr. Hunt says, this gap is too big for *ὁ Βαράκης* alone and in spite of the singular verb *κατέστησεν* we may supply *Βαράκης καὶ Σωβήνης*: it is just conceivable that, as the contract is no ordinary sale but involves the buyer as well as the seller in future obligations, buyer and seller joined in naming the sureties or each named one for himself, so that the last words were *Βαράκης καὶ Γαθάκης*.

Grammatically Chosstroes ought to be *ἔγγυος* and Apaces *συνέγδοτος*: this is just possible, *ἔγγυος* being not the same as *βεβαιωτής*. Partsch¹⁰³ shews that the latter is only the guarantor of the buyer's title, whereas the former is any sort of surety: in this case he might be surety that Gathaces would fulfil his obligations: *συνέγδοτος* is apparently a new word and its meaning accordingly uncertain. A bride is called *ἡ ἔγδοτος*,¹⁰⁴ 'given away': if our word is meant as a passive it must mean 'put forward (by the vendor) with himself.' But it is quite likely, as Professor Deissmann suggests, that *συνεγδότην* is meant: *ἐκδίδωμι* or *ἐκδίδομαι* is used of the *Aussteller*, the man who executes a document,¹⁰⁵ also of the lessor in the parable of the vineyard,¹⁰⁶ and the *συνεκδότης* would be the man who joined with the vendor in executing a sale and acted as warrantor, or else the co-lessor = *συμβεβαιωτής*¹⁰⁷ or *βεβαιωτής*: but it is more likely that the intention was to say that Chosstroes and Apaces were appointed *ἔγγυοι καὶ συνέγδοτοι*, *ἔγγυος* being practically a synonym for *βεβαιωτής* (cf. the passage just cited) and *συνέγδοτος* much the same thing: the *βεβαιωτής* is often a person who is named near the beginning of a deed alongside the vendor as *ἀποδόμενος*,¹⁰⁸

¹⁰¹ Aristot. *H.A.* VII. ii. 1.

¹⁰² The Reverend H. E. Fitzherbert, out of his practical experience of irrigation, approves this view; cf. Col. P. M. Sykes, *History of Persia*, ii. p. 495, 'Each villager receives water every tenth day for about six or seven hours' from the *kanat*; G. N. Curzon, *Persia*, i. p. 115 n.; Polybius, X. xxv. 2.

¹⁰³ *Gr. Bürgerrechtsrecht*, i. (1909), pp. 340 sqq.

¹⁰⁴ Grenfell, *Erotic Fragment*, l. 7.

¹⁰⁵ Heerwerden cites *P. Flor.* 95, l. 15, *συνεξέδωκα τὴν ἀποχὴν*; cf. *P. Grenf.* ii. 80, l. 18; 81, l. 18.

¹⁰⁶ Matt. xxi. 33.

¹⁰⁷ *P. Lips.* i. 4, l. 6, cf. ll. 13, 34: *ἐγγυῶμαι καὶ συμβεβαιῶ* (Mitteis, *Grundz.* II, ii. 171)

¹⁰⁸ Delphi, v. Partsch, *op. cit.* p. 350, n. 2.

συνενδοκῶν,¹⁰⁹ συμπρατήρ,¹¹⁰ συνεπικελεύων καὶ συνπωλούμενος¹¹¹ as being a near kinsman with a claim to the property, whose warranty would be of special value. This seems to me¹¹² quite a different thing from the old use of calling him actually προπωλητής, προαποδότας and even πρατήρ,¹¹³ which meant that he was originally a kind of deputy seller with all the responsibility of the sale. The important thing is that our documents agree with Greek usage against Graeco-Egyptian. Egyptian law not requiring a warrantor in a sale, the Greek warranty formulas were reduced to an absurdity, e.g., *P. Lond.* 1204 just mentioned ends up προπωληταὶ καὶ βεβαιωταὶ Τ. καὶ Σ. καὶ Τ. οἱ ἀποδόμενοι, οὓς ἐδέξατο Κ. ἡ πριαμένη.¹¹⁴

In I. B 29 we have the ἑγγυος καὶ συνέγδοτος appointed, but the words have to speak for themselves. In II. A 12 the appointment of Arthasthates is mentioned, but it is only in B 11–16 that any attempt is made to define the responsibilities of the βεβαιωτής: these are not quite in common form and as the text is very careless it is hard to know what to make of them. In lines 11, 12 we learn that he came in person and promised to guarantee 'the aforesaid two cotylae.' I think it is almost certain that this is a mistake, but I am not sure what ought to stand instead. The guarantor is generally only concerned with the vendor doing his share of the bargain, i.e. giving the buyer a clear title, so that we might expect (as I said above) τὴν προγεγραμμένην ἄμπελον: but the way in which he is coupled with the vendor in the next clause makes me wonder whether here he is not supporting the credit of the buyer and we should not read τὰς νέ' δραχμὰς προγεγραμμένας, or conceivably, if κατ' ἐνιαυτόν applies to all the payments and gifts following, he may have meant the due future payment of these. The ordinary warranty on the part of the seller and of the guarantor as against any claims to the vineyard is expressed in ll. 12–16.¹¹⁵

The carelessly written addition at the end of I. A has perished in two critical points: the last three lines of B make things a good deal clearer, but they too have suffered and the interlinear additions are illegible. In a way they correspond to II. A B 9, 10, but here again the text is confused.

I. B 32–34 is on the whole the most hopeful. The 'buyer gives the vendor in addition to the price one drachma of ἔμβαθρον, some meat, 50 baskets (, κάλαθοι?) of loaves, two cotylae of wine, and something else added between the lines. The vendor gives the buyer ἀπὸ λην[οῦ τῷ] ρύμα¹¹⁶ (above are κ (?) α, probably 21 measures¹¹⁷) καὶ ἀπόρρυμα, no doubt the must

¹⁰⁹ *ibid.* and Ditt. *Syll.*² 850, l. 20.

¹¹⁰ Mitteis, *Reichsrecht u. Volksr.* p. 504; 'Lex. Rhet.' ap. Bekker, *Anecdota Gr.* i. p. 193.

¹¹¹ *P. Lond.* 1204 (iii. p. 11) II. l. 17 (Mitteis, *Grundz.* 152).

¹¹² *pace* Mitteis and Patsch, *loc. cit.*

¹¹³ *Rec. Inscr. Jur. Gr.* i. pp. 64 *sqq.*; Plato, *Leges*, xi. 915 n.

¹¹⁴ For this question of surety and warranty besides Patsch, *op. cit.*, whose Part I. only deals directly with old Greek law and not with

papyri, v. Mitteis, *Grundz.* II. i. pp. 264–270; Bry, *La Vente*, pp. 267–294; and Thalheim. s.v. βεβαίωσις and ἑγγύη in Pauly-Wissowa.

¹¹⁵ Mr Bell says 'ἐξάγονται κ.τ.λ. is only specifying the obligation, not adding something to it, so that I should take τὴν προγ. ἄμπελον (or πρᾶσιν) as the probable correction.'

¹¹⁶ In *C.I.G.* 1838 b, l. 5, Cor-yra, it is only rainwater.

¹¹⁷ For the κ, cf. Tsereteli, *Abbrév. in Gr. MSS.*², Pl. VI., but it is perhaps more like a ζ'.

that came off naturally and that which required pressing and was of inferior quality, *ινδα κ . . . νζην*, which I cannot make out, and the squeezed raisins left in the wine-press: the transfer seems to have occurred just at the moment, November, when the wine had been made and as Gathaces was taking over the concern he received these materials just as they were: perhaps the extra ten drachmas put on to the price in B represent the value of these materials. Of this transaction there is no trace in A. But A gives us another version of his payments to Baraces. The bread seems to agree and the wine and the drachma of *ἐνβαθρον*: the number after the *κρεῶν* looks like *λε'* in A and *εκ'* in B: further in A we have *ελος α'* (?) and *βοὺς η'*, which are not represented in B unless perhaps at the end of l. 32 or in the interlineation: *ελος* is quite unintelligible, it is certainly not written *ελας* though Hunt and Bell have proposed so to correct it. It is a temptation to read *τέλος* or *σκέλος*, but A does not allow of it. The corresponding clauses in II. help in one or two points: they confirm the interpretation *κ° β* as *κοτύλας δύο*, a most extraordinarily small quantity, otherwise we might have thought of *κόροι*,¹¹⁸ also the bread, 50 baskets in one case and 21 in the other, and side by side with this small beer, as Moulton calls it, we have quite clearly five oxen as against the eight in I. But for the oxen these things might be merely materials of a feast to celebrate the bargain, such as was customary in Babylonia and elsewhere, and the two measures of barley in II. A 10 would not have been out of scale, but the oxen are certainly a serious part of the consideration. It is curious that they do not come into I. B unless as an illegible addition.

Then in II. we have a drachma *ἐμβάθρον* and a drachma *σκέλος*. The latter is quite unintelligible: it looks as if it might be a new rendering of *šeql* beside *σίκλος*, *σίγλος*.¹¹⁹ A 9 makes it appear that it was a yearly payment, but in B 9 the *ἐμβαθρον* is called yearly. However, it is likely that this is a mistake; perhaps the *σκέλος* was a yearly charge on the land either as an acknowledgment or a religious tax. The *ἐνβαθρον*, I. A 30, B 32, II. B 9, fee of one drachma is new; it seems most probably to have been only paid once and looks as if it were a fee for taking possession, Mommsen's definition of *τὸ ἐμβαδικὸν* in Egypt where it goes with *ἐκφόριον* = ground-rent¹²⁰: *ἐμβαδία* is when a mortgagee forecloses and assumes possession (*ἐμβατεύει*) of a property.¹²¹

With regard to these extra payments, it seems just worth mentioning that in Babylonian sales there are sums in addition to the purchase-money, e.g. 'Iddinna-Nabu . . . has declared that he has bought and pays 1 mina 7½ *šeqls* money as his full price and 2½ *šeqls* money as *at-ri u lu-bar-ri* to

¹¹⁸ A measure = 75 gallons: Josephus, *Ant. Jud.* XV. ix. 2, Aramaic *kor* corresponding to Hebrew *homer*.

¹¹⁹ *σίκλος* represents the vocalism of the construct *שִׁקְלָא*; *σκέλος* perhaps the plural *שִׁקְלִים*.

¹²⁰ Wilcken, *Gr. Ostraka*, 1024, 1237, 1262.

¹²¹ 'Lex. Rhét.' ap. Bekker, *Anecd. Gr.* p. 249; cf. Mitteis, *Grundz.* II. i. p. 161, also his 'Geschichte der Erbpacht,' *Abhdl. d. sächs. Ges. d. Wiss.*, xx. No. 4, p. 9.

the lady of the house he has given them, total 1 mina, 10 šeqels money.' ¹²² *At-ri u lu-bar-ri* are explained as 'extra and as a dress,' i.e. a complimentary present making up a round sum.¹²³ A little further on (l. 31) we come to '3 šeqel money as a present for sealing,' but this is the scribe's fee.

Lastly, it may be noticed that neither document has any mention of an *ἀρράβων*, which is not indeed very common in Graeco-Egyptian sales.¹²⁴

II.

Most of the points in II. have been discussed in connexion with corresponding points in I., but a few remain to be disposed of.

ψειλόφυτον, A 6, B 7: Mitteis in his letter takes this new word as 'bare and uncultivated,' being the opposite to *ἐπαφον*, but another possibility is that the opposition is like that in Arist. *Pol.* I. xi. 4 (1259a), Theophr. *Caus. Plant.* III. xx. 1, *ψιλὴ γεωργία*, the tillage of land for corn and the like as against *γεωργία πεφυτευμένη*, tillage for vines or olives, i.e. that the vineyard in question was situated among the corn-crops, not among the other vineyards.'

ὅς κ[αὶ πάρω]ν, B 11, a certain restoration by Dr. Hunt on the analogy of e.g. *P. Lond.* 154 (ii. p. 179), l. 17, *παρούσα δ' ἡ τοῦ Ἡ. μήτηρ εὐδοκεῖ*; or *B.G.U.* i. 96, l. 14, 183, l. 10 (Mitteis, *Grundz.* 313), 251, l. 8, 252, l. 10, etc.

ἐμποιήθη, B 13, regular word for preferring a claim, e.g. *P. Lond.* 154 (ii. p. 179), l. 14, *B.G.U.* i. 13, l. 13; iii. 987, l. 11 (Mitteis, *Grundz.* 255, 265, 269): so *A.J.A.* xvi. (1912) p. 13, II. l. 2 (Sardes).

πεπραμμένης, B 13, perhaps the spelling is on the analogy of *γεγραμμένας*.

παρευρέσει μηδεμίᾳ, B 14, Decret. ap. Dem. 238, 6; *P. Eleph.* 1, l. 9, and constantly afterwards.

ἀκύρην, B 14, for the form cf. *ἀνεπάφην*, *I.o.s.P.E.* ii. 54, l. 10: *φιλαδέλφη*, Ditt. *O.G.I.* 30, l. 2.

ἀνευ δίκης καὶ κρίσεως, B 15, Mitteis, *Grundz.* II. i. p. 120 and ii. introd. to 62, regards this clause as mere verbiage; it does often continue with *καὶ πάσης ὑπερθέσεως καὶ εὐρεσιλογίας* and the like, but it must have been meant originally to give a summary right to the fine; in Babylonian deeds we have 'the one who shall alter this shall pay, without suit or protest, two minas,' etc.¹²⁵

HELLENISM IN MEDIA AND MESOPOTAMIA.

But all these things are the merest details. The real interest of these deeds is that they shew the use of Greek law and Greek speech in a region

¹²² F. E. Peiser, *Babylonische Verträge*, p. 131, No. xciv. Br. Mus. 84. 2-11. 103, ll. 13-19.

¹²³ Peiser, *Keilinschriftliche Aktenstücke*, pp. 81, 83, 84, is not quite pleased with the

rendering.

¹²⁴ Bry. *op. cit.* pp. 104, 118-122; Mitteis, *Grundz.* II. i. pp. 184-186.

¹²⁵ A. T. Clay, *op. cit.* p. 29, No. 3 (No. 24..

wherein we did not dare to hope for it. It is true that Polybius (X. xxiv. 3) speaks of the many Greek cities established in Media by Alexander in order to keep watch upon the barbarians that pertain to it, but this is equally good evidence of the strength of the barbarian element. Of the many Greek cities, we only know of Europus, which was a refoundation of Rhagae, a Heraclea nearby refounded as Achais, a Laodicea and Apamea Rhagiana.¹²⁶ Perhaps Avroman was more nearly connected with the lower course of the Diala, the region of Apolloniatis, with Apollonia and Artemita,¹²⁷ towns which must have had some Greek population.

As to Greek law being used in these parts, the nearest hint of it hitherto has been the existence of the Syro-Roman Law-book, preserved in Syriac, Arabic, and Armenian versions.¹²⁸ According to Mitteis,¹²⁹ in its non-Roman parts this is mainly of Greek origin and contains the remains of the law of the Greek colonists practised by them in their free cities. This Greek nucleus was never dissolved away by the Oriental elements nor quite superseded by Roman law. No doubt it is more an evidence for Hellenistic law in Syria than for such in the Eastern parts of the Seleucid monarchy, but our documents shew that Greek was the law language even here: they mark the last employment of the language, for the third document and the endorsement of I. are in some other tongue.¹³⁰

Apart from its use in law other evidence goes to shew that Greek lost ground very rapidly just about the beginning of the Christian era.¹³¹ Of the few Greek inscriptions that come from the east of the Euphrates¹³² only that of Gotarzes¹³³ is later than this period and it is to be classed with the inscriptions of Ardeshir and Sapor,¹³⁴ and with the coin-legends¹³⁵ as evidence of the prestige rather than the actual use of the Greek tongue.

Older inscriptions come from Babylon¹³⁶ and Susa,¹³⁷ and shew that the Greek colonies in those towns had the regular Greek organization; no doubt

¹²⁶ Bevan, *House of Seleucus*, i. p. 264.

¹²⁷ Home of the Apollodorus whose *Παρθινά* we miss so much.

¹²⁸ Ed. Bruns-Sachau, 1880.

¹²⁹ *Reichsrecht u. Volksrecht*, pp. 30 sqq.

¹³⁰ V. Chapot, 'Les Destinées de l'Hellénisme au delà de l'Euphrate,' *Mém. de la Soc. des Antiquaires de France*, lxxiii. (1904), pp. 207-296, reviews the question very fully: our documents tend to show that he underrates the Greek element.

¹³¹ For its use as a *lingua franca* in lower Chaldaea and eastwards along the coasts, see J. Kennedy, 'The Secret of Kanishka,' ii. *J.R.A.S.* 1912, pp. 989-1018.

¹³² See Haussoullier's list in *Mélanges Perrot*, pp. 158, 159, and *Klio*, ix. pp. 352-363.

¹³³ *O.G.I.* 431.

¹³⁴ *O.G.I.* 432-434.

¹³⁵ The Greek sovereigns naturally struck coins upon Greek standards which had to be tested by Greek weights, e.g. A. Dumont's (*Mélanges*, pp. 134-154) inscribed *Θεοδοσίου Ἀνδρομάχου ἀγορανομούντος, χρυσοὶ δύο* (17 grm. = 2 staters), *ἔτους ζνς'* (55 B.C.), from Hillah, showing how late Seleucid gold (as there is no Parthian) was still in circulation in Babylon.

¹³⁶ *O.G.I.* 253, 254; *r* and *s* *supra*, p. 36; J. Oppert, *Expéd. Scient. en Mésopotamie* (1863) i. p. 168; Dumont's weight; and a disk with *Ἀριστέας ὧι ἄλλο ὄνομα Ἀρδυβήλ Τείος* shewing the first stage of Orientalization, ap. Haussoullier, *Klio*, ix. p. 362.

¹³⁷ *O.G.I.* 747 and *τῶν ἐν τοῖς π[ράγμασιν]*, W. K. Loftus, *Travels and Researches in Chaldaea and Susiana*, pp. 403, 404; Haussoullier, *Mél. Perrot*, p. 157.

the same is true of Orchoe (Erech)¹³⁸; the long letter sent by the far Eastern Greek towns, Seleucia ad Tigrim, Apamea ad Seleam, Seleucia ad Mare Erythraeum, Seleucia ad Eulaeum (Susa), and others to Magnesia ad Maeandrum, shews that they had masters of the complimentary style of the third century B.C.¹³⁹ At any rate the great Seleucia¹⁴⁰ produced a few authors whose names have come down to us, and Charax has Isidore to shew, whose *Σταθμοὶ Παρθικοί* I have already quoted, but our pieces are very nearly the most easterly examples of continuous Greek known.¹⁴¹

When the Parthian kings and their court were brought by their conquest of Susiana and Mesopotamia into close contact with large Greek settlements they certainly put on a veneer of Greek culture. The epithet of *φιλέλλην* was the outer symbol of this, but its reasons were political: the Greek cities were the natural allies of the central power. They could furnish the king with troops estranged from the provincial levies and with educated men for engineers and diplomats: he could keep communications open and allow commerce to pass. The enemies of both were the under-kings and satraps whose power rested upon local and racial particularism. It was worth the Parthian king's while to proclaim himself a friend to the Greeks and to try and turn their eyes away from the sinking power of the Seleucids and gain their allegiance for himself. Once masters of the Mesopotamian plain the Arsacids found it the richest part of their empire and made Ctesiphon one of their capitals. Here they could enjoy the lighter side of Greek life and took to themselves Greek concubines or even wives from among the semi-Greek dynasties of Western Asia. Through these Greek speech and Greek customs naturally entered into their lives and it is not surprising that the *Bacchae* of Euripides should have been playing just when the head of Crassus was brought in. The story aptly illustrates the quality of Parthian philhellenism. It looks, however, as if even this veneer grew thinner after the time of Phraates IV. The Greeks of Seleucia ad Tigrim and the other Greek settlements were being assimilated by the natives; their towns were less flourishing as the irrigation works fell into decay. The petty dynasties had mostly been extinguished and the Cleopatra of II. is probably the last Greek wife of a Parthian king. Musa was really only a slave girl. The corruption of the coin legends and the gradual introduction of Aramaic letters shew how far things had gone, for conservatism has a strong hold upon coins: English has only got on to one side of our silver and copper and is not yet allowed upon gold. Still some Greek life probably survived until the destruction of Seleucia in 116 A.D.

¹³⁸ A. T. Clay, *op. cit.* pp. 16-18, gives 24 Greek names from cuneiform tablets found here; a Greek actually dedicates a slave girl in a native temple. Cf. Oppert-Menant, *Documents Juridiques*, p. 322, a Diocles, son of Anu-uballit-su and an Isidore, cf. Anz, *Ursprung des Gnosticismus*, p. 62.

¹³⁹ See *O.G.I.* 231-233.

¹⁴⁰ Chapot, *op. cit.* pp. 240-246. Oppert's

inscription is part of a versified epitaph. Herodius of Babylon could even write verse to make fun of the Alexandrian textual critics, ap. Athenaeum 222a. We have an Aramaean's name in Greek in *C.I.Semit.* ii. 72 from Telloh, c. 300, ΑΔΑΔΝΑΔΙΝΑΧΗΣ, 𐤀𐤠𐤍𐤏𐤍𐤁𐤏𐤍.

¹⁴¹ The Book of Tobit is now supposed to have been written in Egypt and perhaps in Aramaic.

TABLE II.

I	II	III	IV	V	VI	VII	VIII	Values.	Hebrew
א	א	א	א	א	א	א	א	1	א
ב	ב	ב	ב	ב	ב	ב	ב	2	ב
ג	ג	ג	ג	ג	ג	ג	ג	3	ג
ד	ד	ד	ד	ד	ד	ד	ד	4	ד
ה	ה	ה	ה	ה	ה	ה	ה	5	ה
ו	ו	ו	ו	ו	ו	ו	ו	6	ו
ז	ז	ז	ז	ז	ז	ז	ז	7	ז
ח	ח	ח	ח	ח	ח	ח	ח	8	ח
ט	ט	ט	ט	ט	ט	ט	ט	9	ט
י	י	י	י	י	י	י	י	10	י
כ	כ	כ	כ	כ	כ	כ	כ	20	כ
ל	ל	ל	ל	ל	ל	ל	ל	30	ל
מ	מ	מ	מ	מ	מ	מ	מ	40	מ
נ	נ	נ	נ	נ	נ	נ	נ	50	נ
ס	ס	ס	ס	ס	ס	ס	ס	60	ס
ע	ע	ע	ע	ע	ע	ע	ע	70	ע
פ	פ	פ	פ	פ	פ	פ	פ	80	פ
צ	צ	צ	צ	צ	צ	צ	צ	90	צ
ק	ק	ק	ק	ק	ק	ק	ק	100	ק
ר	ר	ר	ר	ר	ר	ר	ר	200	ר
ש	ש	ש	ש	ש	ש	ש	ש	300	ש
ת	ת	ת	ת	ת	ת	ת	ת	400	ת
333	333	333	333	333	333	333	333	666	תתקל"ג
(=4)	(=4)	(=4)	(=4)	(=4)	(=4)	(=4)	(=4)	(=4)	(=4)

Avroman. Alphabets to illustrate III and List of Words.

In preparing the paper I read to the Society and now this article I have received help from so many scholars that it is hard for me to give each his due. My first thanks are to Professor Browne who entrusted the documents to me. In the work of deciphering, Professor Burkitt helped me at an early stage. Then Mr. H. I. Bell of the British Museum, to whom I submitted the originals, gave me a whole day's help and advanced things very much, though as we worked together I cannot exactly say which readings are his and which are mine. Since then he has advised me on many points and has read through this article in MS. and set me right in sundry places. Professor A. S. Hunt of Queen's College, Oxford, suggested some most valuable improvements and supplements, while the Reverend H. S. Cronin of Trinity Hall and Mr. B. Haussoullier, Fellow of the Institute of France, pointed out certain inaccuracies in the transcription I circulated. Remarks of Sir Frederic G. Kenyon, Dr. Hunt, and Mr. Bell, threw light on the palaeographical side, while the linguistic and legal interpretation has been advanced by suggestions from these same scholars, from Mr. W. H. Buckler, Professor A. Deissmann, Mr. Haussoullier, Professor L. Mitteis, Dr. J. H. Moulton, Dr. F. Preisigke, and Professor Rostovtsev; it was a great regret that I could not add Professor U. Wilcken's name to this list. Dr. L. W. King and Canon C. H. W. Johns, Master of St. Catharine's College, Cambridge, have given me much assistance in matters that involved Assyriology.

My very special thanks are due to Dr. F. J. Allen of St. John's College, Cambridge, for the care and skill which, after the failure of a professional operator, he gave to photographing the documents.

I cannot close this paper without once more praising the enthusiasm for knowledge which made Dr. Sa'id Khān save for European science these memorials of the former use of a European tongue among his Kurdish hills.

APPENDIX.

The study of Document III. is not Hellenic, but it cannot well be separated from that of the two Greek deeds with which it was found.

Unfortunately, although I have consulted everyone within my reach who might appear likely to help, I have not been successful in identifying the language. I cannot think that it is Aramaic or Dr. Cowley of the Bodleian or Mr. S. A. Cook would have made it out. The natural inference from the Iranian names of the witnesses in the Greek deeds suggests that we have an Iranian tongue. Professor Andreas of Berlin is said to have read it as Iranian and Professor Lidzbarski is quite clear that it is not Aramaic,^{141a} though containing Aramaic words, whereas Professor Littmann has read the greater part of it as Aramaic^{141b}; but none of these scholars have told us exactly what they have read, so their successes are no help to us.

Probably the document is in an early form of Pahlavi and as usual in Pahlavi and also in Sogdian there are many 'logograms' or 'cryptograms,' viz. words written as Semitic but read and pronounced as Iranian, just as we pronounce viz. (*videlicet*)

^{141a} Letter dated 2 Dec. 1913.

^{141b} Letter from Professor Noldeke, 19 Nov. 1913.

'namely.' The only one that I seem to identify is *MIN*, 'from,' which occurs twice (4², 7⁶), but as I know neither any Semitic language nor any Iranian I cannot do anything.

It is however possible to place the script in its position among known alphabets. Table II. shews this clearly. Without claiming much for the values I have assigned to individual letters I have had little difficulty in arranging all the forms present in the document in such a way as to make them correspond to forms that we know from coins minted in Iranian countries; Column III. shews the earlier and the later forms of the letters on the coins ascribed to sub-kings of Persis during the later Seleucid period as set out by Colonel Allotte de la Fûye.¹⁴²

The coins of the Arsacids themselves (Col. VI.) do not bear Pahlavi until the time of Volagases I., A.D. 51-77,¹⁴³ and then but one or two letters; full legends only come in with Mithradates IV. c. 130 A.D. The coins are unsatisfactory as the letters are very badly formed and we cannot make up the full alphabet. The letters lacking in Sassanian Pahlavi *𐭠*, *𐭡*, *𐭢* and *𐭣* (*t*, *t*², *ts*, *q*) are naturally absent from the coins,¹⁴⁴ but we have no certain *𐭤*, *𐭥*, *𐭦* or *𐭧* (*z*, *h*, *n*, *s*). I have put beside the early coins the alphabet (Col. II.) of the Aramaic papyri and inscriptions from Egypt dating from the fourth and the third centuries B.C.¹⁴⁵ The writing on the back of I. (Col. IV.) is noticeably more like these, being more upright and less flowing than that of III. It is most unfortunate that there seems to be no Aramaic writing from Mesopotamia that we can well compare: the dockets on cuneiform tablets are much too old, and the letters on the tile of Hadadnadinakh (p. 61 n. 140) are quite epigraphic.¹⁴⁶ Col. I. shews the square Hebrew, closely allied and yet familiar: note that the final forms are the more original. On the other side I have put the so-called Chaldaeo-Pahlavi (Col. VII.),¹⁴⁷ and the alphabet of documents in an early form of Sogdian dating from about the second century A.D. and found by Sir M. A. Stein on the Chinese *limes*.¹⁴⁸ It exhibits a different application of Aramaic letters to an Iranian language and is only helpful in one or two cases. I have added a list of words arranged according to their first letter; they can be identified by the numbers giving the line and the place therein. (The third word in the list is 2⁷, not 2⁵.)

Such an attempt as mine to assign values to letters according to their form alone without being able to control these values by recognizing the words they make up is something less than tentative: and yet it has seemed worth making. The first result is that except for a very doubtful *𐭡* only occurring in one word, the letters which are lacking in Pahlavi, *𐭠*, *𐭡*, *𐭢* and *𐭣* seem to be lacking in ours.¹⁴⁹ This would argue that we have a similar language. I have some hopes that there is considerable probability in favour of my *𐭠*, *𐭡*, *𐭢*, *𐭣*, *𐭤*, *𐭥*, *𐭦*, *𐭧*, *𐭨*, *𐭩*, *𐭪*, *𐭫*, *𐭬*, *𐭭*, *𐭮*, *𐭯*, *𐭰*, *𐭱*, *𐭲*, *𐭳*, *𐭴*, *𐭵*, *𐭶*, *𐭷*, *𐭸*, *𐭹*, *𐭺*, *𐭻*, *𐭼*, *𐭽*, *𐭾*, *𐭿*, *𐮀*, *𐮁*, *𐮂*, *𐮃*, *𐮄*, *𐮅*, *𐮆*, *𐮇*, *𐮈*, *𐮉*, *𐮊*, *𐮋*, *𐮌*, *𐮍*, *𐮎*, *𐮏*, *𐮐*, *𐮑*, *𐮒*, *𐮓*, *𐮔*, *𐮕*, *𐮖*, *𐮗*, *𐮘*, *𐮙*, *𐮚*, *𐮛*, *𐮜*, *𐮝*, *𐮞*, *𐮟*, *𐮠*, *𐮡*, *𐮢*, *𐮣*, *𐮤*, *𐮥*, *𐮦*, *𐮧*, *𐮨*, *𐮩*, *𐮪*, *𐮫*, *𐮬*, *𐮭*, *𐮮*, *𐮯*, *𐮰*, *𐮱*, *𐮲*, *𐮳*, *𐮴*, *𐮵*, *𐮶*, *𐮷*, *𐮸*, *𐮹*, *𐮺*, *𐮻*, *𐮼*, *𐮽*, *𐮾*, *𐮿*, *𐯀*, *𐯁*, *𐯂*, *𐯃*, *𐯄*, *𐯅*, *𐯆*, *𐯇*, *𐯈*, *𐯉*, *𐯊*, *𐯋*, *𐯌*, *𐯍*, *𐯎*, *𐯏*, *𐯐*, *𐯑*, *𐯒*, *𐯓*, *𐯔*, *𐯕*, *𐯖*, *𐯗*, *𐯘*, *𐯙*, *𐯚*, *𐯛*, *𐯜*, *𐯝*, *𐯞*, *𐯟*, *𐯠*, *𐯡*, *𐯢*, *𐯣*, *𐯤*, *𐯥*, *𐯦*, *𐯧*, *𐯨*, *𐯩*, *𐯪*, *𐯫*, *𐯬*, *𐯭*, *𐯮*, *𐯯*, *𐯰*, *𐯱*, *𐯲*, *𐯳*, *𐯴*, *𐯵*, *𐯶*, *𐯷*, *𐯸*, *𐯹*, *𐯺*, *𐯻*, *𐯼*, *𐯽*, *𐯾*, *𐯿*, *𐰀*, *𐰁*, *𐰂*, *𐰃*, *𐰄*, *𐰅*, *𐰆*, *𐰇*, *𐰈*, *𐰉*, *𐰊*, *𐰋*, *𐰌*, *𐰍*, *𐰎*, *𐰏*, *𐰐*, *𐰑*, *𐰒*, *𐰓*, *𐰔*, *𐰕*, *𐰖*, *𐰗*, *𐰘*, *𐰙*, *𐰚*, *𐰛*, *𐰜*, *𐰝*, *𐰞*, *𐰟*, *𐰠*, *𐰡*, *𐰢*, *𐰣*, *𐰤*, *𐰥*, *𐰦*, *𐰧*, *𐰨*, *𐰩*, *𐰪*, *𐰫*, *𐰬*, *𐰭*, *𐰮*, *𐰯*, *𐰰*, *𐰱*, *𐰲*, *𐰳*, *𐰴*, *𐰵*, *𐰶*, *𐰷*, *𐰸*, *𐰹*, *𐰺*, *𐰻*, *𐰼*, *𐰽*, *𐰾*, *𐰿*, *𐱀*, *𐱁*, *𐱂*, *𐱃*, *𐱄*, *𐱅*, *𐱆*, *𐱇*, *𐱈*, *𐱉*, *𐱊*, *𐱋*, *𐱌*, *𐱍*, *𐱎*, *𐱏*, *𐱐*, *𐱑*, *𐱒*, *𐱓*, *𐱔*, *𐱕*, *𐱖*, *𐱗*, *𐱘*, *𐱙*, *𐱚*, *𐱛*, *𐱜*, *𐱝*, *𐱞*, *𐱟*, *𐱠*, *𐱡*, *𐱢*, *𐱣*, *𐱤*, *𐱥*, *𐱦*, *𐱧*, *𐱨*, *𐱩*, *𐱪*, *𐱫*, *𐱬*, *𐱭*, *𐱮*, *𐱯*, *𐱰*, *𐱱*, *𐱲*, *𐱳*, *𐱴*, *𐱵*, *𐱶*, *𐱷*, *𐱸*, *𐱹*, *𐱺*, *𐱻*, *𐱼*, *𐱽*, *𐱾*, *𐱿*, *𐲀*, *𐲁*, *𐲂*, *𐲃*, *𐲄*, *𐲅*, *𐲆*, *𐲇*, *𐲈*, *𐲉*, *𐲊*, *𐲋*, *𐲌*, *𐲍*, *𐲎*, *𐲏*, *𐲐*, *𐲑*, *𐲒*, *𐲓*, *𐲔*, *𐲕*, *𐲖*, *𐲗*, *𐲘*, *𐲙*, *𐲚*, *𐲛*, *𐲜*, *𐲝*, *𐲞*, *𐲟*, *𐲠*, *𐲡*, *𐲢*, *𐲣*, *𐲤*, *𐲥*, *𐲦*, *𐲧*, *𐲨*, *𐲩*, *𐲪*, *𐲫*, *𐲬*, *𐲭*, *𐲮*, *𐲯*, *𐲰*, *𐲱*, *𐲲*, *𐲳*, *𐲴*, *𐲵*, *𐲶*, *𐲷*, *𐲸*, *𐲹*, *𐲺*, *𐲻*, *𐲼*, *𐲽*, *𐲾*, *𐲿*, *𐳀*, *𐳁*, *𐳂*, *𐳃*, *𐳄*, *𐳅*, *𐳆*, *𐳇*, *𐳈*, *𐳉*, *𐳊*, *𐳋*, *𐳌*, *𐳍*, *𐳎*, *𐳏*, *𐳐*, *𐳑*, *𐳒*, *𐳓*, *𐳔*, *𐳕*, *𐳖*, *𐳗*, *𐳘*, *𐳙*, *𐳚*, *𐳛*, *𐳜*, *𐳝*, *𐳞*, *𐳟*, *𐳠*, *𐳡*, *𐳢*, *𐳣*, *𐳤*, *𐳥*, *𐳦*, *𐳧*, *𐳨*, *𐳩*, *𐳪*, *𐳫*, *𐳬*, *𐳭*, *𐳮*, *𐳯*, *𐳰*, *𐳱*, *𐳲*, *𐳳*, *𐳴*, *𐳵*, *𐳶*, *𐳷*, *𐳸*, *𐳹*, *𐳺*, *𐳻*, *𐳼*, *𐳽*, *𐳾*, *𐳿*, *𐴀*, *𐴁*, *𐴂*, *𐴃*, *𐴄*, *𐴅*, *𐴆*, *𐴇*, *𐴈*, *𐴉*, *𐴊*, *𐴋*, *𐴌*, *𐴍*, *𐴎*, *𐴏*, *𐴐*, *𐴑*, *𐴒*, *𐴓*, *𐴔*, *𐴕*, *𐴖*, *𐴗*, *𐴘*, *𐴙*, *𐴚*, *𐴛*, *𐴜*, *𐴝*, *𐴞*, *𐴟*, *𐴠*, *𐴡*, *𐴢*, *𐴣*, *𐴤*, *𐴥*, *𐴦*, *𐴧*, *𐴨*, *𐴩*, *𐴪*, *𐴫*, *𐴬*, *𐴭*, *𐴮*, *𐴯*, *𐴰*, *𐴱*, *𐴲*, *𐴳*, *𐴴*, *𐴵*, *𐴶*, *𐴷*, *𐴸*, *𐴹*, *𐴺*, *𐴻*, *𐴼*, *𐴽*, *𐴾*, *𐴿*, *𐵀*, *𐵁*, *𐵂*, *𐵃*, *𐵄*, *𐵅*, *𐵆*, *𐵇*, *𐵈*, *𐵉*, *𐵊*, *𐵋*, *𐵌*, *𐵍*, *𐵎*, *𐵏*, *𐵐*, *𐵑*, *𐵒*, *𐵓*, *𐵔*, *𐵕*, *𐵖*, *𐵗*, *𐵘*, *𐵙*, *𐵚*, *𐵛*, *𐵜*, *𐵝*, *𐵞*, *𐵟*, *𐵠*, *𐵡*, *𐵢*, *𐵣*, *𐵤*, *𐵥*, *𐵦*, *𐵧*, *𐵨*, *𐵩*, *𐵪*, *𐵫*, *𐵬*, *𐵭*, *𐵮*, *𐵯*, *𐵰*, *𐵱*, *𐵲*, *𐵳*, *𐵴*, *𐵵*, *𐵶*, *𐵷*, *𐵸*, *𐵹*, *𐵺*, *𐵻*, *𐵼*, *𐵽*, *𐵾*, *𐵿*, *𐶀*, *𐶁*, *𐶂*, *𐶃*, *𐶄*, *𐶅*, *𐶆*, *𐶇*, *𐶈*, *𐶉*, *𐶊*, *𐶋*, *𐶌*, *𐶍*, *𐶎*, *𐶏*, *𐶐*, *𐶑*, *𐶒*, *𐶓*, *𐶔*, *𐶕*, *𐶖*, *𐶗*, *𐶘*, *𐶙*, *𐶚*, *𐶛*, *𐶜*, *𐶝*, *𐶞*, *𐶟*, *𐶠*, *𐶡*, *𐶢*, *𐶣*, *𐶤*, *𐶥*, *𐶦*, *𐶧*, *𐶨*, *𐶩*, *𐶪*, *𐶫*, *𐶬*, *𐶭*, *𐶮*, *𐶯*, *𐶰*, *𐶱*, *𐶲*, *𐶳*, *𐶴*, *𐶵*, *𐶶*, *𐶷*, *𐶸*, *𐶹*, *𐶺*, *𐶻*, *𐶼*, *𐶽*, *𐶾*, *𐶿*, *𐷀*, *𐷁*, *𐷂*, *𐷃*, *𐷄*, *𐷅*, *𐷆*, *𐷇*, *𐷈*, *𐷉*, *𐷊*, *𐷋*, *𐷌*, *𐷍*, *𐷎*, *𐷏*, *𐷐*, *𐷑*, *𐷒*, *𐷓*, *𐷔*, *𐷕*, *𐷖*, *𐷗*, *𐷘*, *𐷙*, *𐷚*, *𐷛*, *𐷜*, *𐷝*, *𐷞*, *𐷟*, *𐷠*, *𐷡*, *𐷢*, *𐷣*, *𐷤*, *𐷥*, *𐷦*, *𐷧*, *𐷨*, *𐷩*, *𐷪*, *𐷫*, *𐷬*, *𐷭*, *𐷮*, *𐷯*, *𐷰*, *𐷱*, *𐷲*, *𐷳*, *𐷴*, *𐷵*, *𐷶*, *𐷷*, *𐷸*, *𐷹*, *𐷺*, *𐷻*, *𐷼*, *𐷽*, *𐷾*, *𐷿*, *𐸀*, *𐸁*, *𐸂*, *𐸃*, *𐸄*, *𐸅*, *𐸆*, *𐸇*, *𐸈*, *𐸉*, *𐸊*, *𐸋*, *𐸌*, *𐸍*, *𐸎*, *𐸏*, *𐸐*, *𐸑*, *𐸒*, *𐸓*, *𐸔*, *𐸕*, *𐸖*, *𐸗*, *𐸘*, *𐸙*, *𐸚*, *𐸛*, *𐸜*, *𐸝*, *𐸞*, *𐸟*, *𐸠*, *𐸡*, *𐸢*, *𐸣*, *𐸤*, *𐸥*, *𐸦*, *𐸧*, *𐸨*, *𐸩*, *𐸪*, *𐸫*, *𐸬*, *𐸭*, *𐸮*, *𐸯*, *𐸰*, *𐸱*, *𐸲*, *𐸳*, *𐸴*, *𐸵*, *𐸶*, *𐸷*, *𐸸*, *𐸹*, *𐸺*, *𐸻*, *𐸼*, *𐸽*, *𐸾*, *𐸿*, *𐹀*, *𐹁*, *𐹂*, *𐹃*, *𐹄*, *𐹅*, *𐹆*, *𐹇*, *𐹈*, *𐹉*, *𐹊*, *𐹋*, *𐹌*, *𐹍*, *𐹎*, *𐹏*, *𐹐*, *𐹑*, *𐹒*, *𐹓*, *𐹔*, *𐹕*, *𐹖*, *𐹗*, *𐹘*, *𐹙*, *𐹚*, *𐹛*, *𐹜*, *𐹝*, *𐹞*, *𐹟*, *𐹠*, *𐹡*, *𐹢*, *𐹣*, *𐹤*, *𐹥*, *𐹦*, *𐹧*, *𐹨*, *𐹩*, *𐹪*, *𐹫*, *𐹬*, *𐹭*, *𐹮*, *𐹯*, *𐹰*, *𐹱*, *𐹲*, *𐹳*, *𐹴*, *𐹵*, *𐹶*, *𐹷*, *𐹸*, *𐹹*, *𐹺*, *𐹻*, *𐹼*, *𐹽*, *𐹾*, *𐹿*, *𐺀*, *𐺁*, *𐺂*, *𐺃*, *𐺄*, *𐺅*, *𐺆*, *𐺇*, *𐺈*, *𐺉*, *𐺊*, *𐺋*, *𐺌*, *𐺍*, *𐺎*, *𐺏*, *𐺐*, *𐺑*, *𐺒*, *𐺓*, *𐺔*, *𐺕*, *𐺖*, *𐺗*, *𐺘*, *𐺙*, *𐺚*, *𐺛*, *𐺜*, *𐺝*, *𐺞*, *𐺟*, *𐺠*, *𐺡*, *𐺢*, *𐺣*, *𐺤*, *𐺥*, *𐺦*, *𐺧*, *𐺨*, *𐺩*, *𐺪*, *𐺫*, *𐺬*, *𐺭*, *𐺮*, *𐺯*, *𐺰*, *𐺱*, *𐺲*, *𐺳*, *𐺴*, *𐺵*, *𐺶*, *𐺷*, *𐺸*, *𐺹*, *𐺺*, *𐺻*, *𐺼*, *𐺽*, *𐺾*, *𐺿*, *𐻀*, *𐻁*, *𐻂*, *𐻃*, *𐻄*, *𐻅*, *𐻆*, *𐻇*, *𐻈*, *𐻉*, *𐻊*, *𐻋*, *𐻌*, *𐻍*, *𐻎*, *𐻏*, *𐻐*, *𐻑*, *𐻒*, *𐻓*, *𐻔*, *𐻕*, *𐻖*, *𐻗*, *𐻘*, *𐻙*, *𐻚*, *𐻛*, *𐻜*, *𐻝*, *𐻞*, *𐻟*, *𐻠*, *𐻡*, *𐻢*, *𐻣*, *𐻤*, *𐻥*, *𐻦*, *𐻧*, *𐻨*, *𐻩*, *𐻪*, *𐻫*, *𐻬*, *𐻭*, *𐻮*, *𐻯*, *𐻰*, *𐻱*, *𐻲*, *𐻳*, *𐻴*, *𐻵*, *𐻶*, *𐻷*, *𐻸*, *𐻹*, *𐻺*, *𐻻*, *𐻼*, *𐻽*, *𐻾*, *𐻿*, *𐼀*, *𐼁*, *𐼂*, *𐼃*, *𐼄*, *𐼅*, *𐼆*, *𐼇*, *𐼈*, *𐼉*, *𐼊*, *𐼋*, *𐼌*, *𐼍*, *𐼎*, *𐼏*, *𐼐*, *𐼑*, *𐼒*, *𐼓*, *𐼔*, *𐼕*, *𐼖*, *𐼗*, *𐼘*, *𐼙*, *𐼚*, *𐼛*, *𐼜*, *𐼝*, *𐼞*, *𐼟*, *𐼠*, *𐼡*, *𐼢*, *𐼣*, *𐼤*, *𐼥*, *𐼦*, *𐼧*, *𐼨*, *𐼩*, *𐼪*, *𐼫*, *𐼬*, *𐼭*, *𐼮*, *𐼯*, *𐼰*, *𐼱*, *𐼲*, *𐼳*, *𐼴*, *𐼵*, *𐼶*, *𐼷*, *𐼸*, *𐼹*, *𐼺*, *𐼻*, *𐼼*, *𐼽*, *𐼾*, *𐼿*, *𐽀*, *𐽁*, *𐽂*, *𐽃*, *𐽄*, *𐽅*, *𐽆*, *𐽇*, *𐽈*, *𐽉*, *𐽊*, *𐽋*, *𐽌*, *𐽍*, *𐽎*, *𐽏*, *𐽐*, *𐽑*, *𐽒*, *𐽓*, *𐽔*, *𐽕*, *𐽖*, *𐽗*, *𐽘*, *𐽙*, *𐽚*, *𐽛*, *𐽜*, *𐽝*, *𐽞*, *𐽟*, *𐽠*, *𐽡*, *𐽢*, *𐽣*, *𐽤*, *𐽥*, *𐽦*, *𐽧*, *𐽨*, *𐽩*, *𐽪*, *𐽫*, *𐽬*, *𐽭*, *𐽮*, *𐽯*, *𐽰*, *𐽱*, *𐽲*, *𐽳*, *𐽴*, *𐽵*, *𐽶*, *𐽷*, *𐽸*, *𐽹*, *𐽺*, *𐽻*, *𐽼*, *𐽽*, *𐽾*, *𐽿*, *𐾀*, *𐾁*, *𐾂*, *𐾃*, *𐾄*, *𐾅*, *𐾆*, *𐾇*, *𐾈*, *𐾉*, *𐾊*, *𐾋*, *𐾌*, *𐾍*, *𐾎*, *𐾏*, *𐾐*, *𐾑*, *𐾒*, *𐾓*, *𐾔*, *𐾕*, *𐾖*, *𐾗*, *𐾘*, *𐾙*, *𐾚*, *𐾛*, *𐾜*, *𐾝*, *𐾞*, *𐾟*, *𐾠*, *𐾡*, *𐾢*, *𐾣*, *𐾤*, *𐾥*, *𐾦*, *𐾧*, *𐾨*, *𐾩*, *𐾪*, *𐾫*, *𐾬*, *𐾭*, *𐾮*, *𐾯*, *𐾰*, *𐾱*, *𐾲*, *𐾳*, *𐾴*, *𐾵*, *𐾶*, *𐾷*, *𐾸*, *𐾹*, *𐾺*, *𐾻*, *𐾼*, *𐾽*, *𐾾*, *𐾿*, *𐿀*, *𐿁*,

Any Aramaic alphabet is sure to have ܒ, ܕ, ܕ (ܕ) and ܐ very much alike; the details are only to be distinguished by the sense, but we have ܕ shaped letters enough to represent them. Again ܐ and ܐ are likely to be indistinguishable and ܐ or ܐ may come very close to them in certain positions. In the other cases we have no evidence to make us lean more on the earlier coin or papyrus forms or on the Arsacid or Chaldaeo-Pahlavi.¹⁵² Everyone has had hopes of the word 17 which occurs no less than nine times; *bugi*, *bani*, *bari*, have been suggested, but it is more likely to be a copula. Dr. Cowley's suggestion that 17, 2 are ܐܡܐ, 'year,' followed by a number with a termination is most attractive. One would choose 300 or so, making the date a little later than II., and I seem to see a sign for 3 followed by a kind of ܐ not unlike the hundred in Aramaic,¹⁵³ but I cannot get ARŠAKA MALKA out of the following words. I cannot resist a guess that 66 is a compound of Mithra.

We must be not unmindful that the language may be Kurdish, or something quite unknown: the Iranian proper names spread far beyond the limits of Iranian speech, but we must first of all look to Aramaic and Iranian scholars for help in a problem which transcends the limitations of Hellenists.

ELLIS H. MINNS.

¹⁵² I more and more incline to my second thoughts for ܐ and ܐ.

¹⁵³ v. Lidzbarski, *loc. cit.*, better still, Sachau, *Aramäische Papyrus und Ostraka aus Elephantine*, Pl. 52, l. 11: Pahlavi hundreds go on the

same principle, though the sign is not like this. If this is right the words marked 1¹ and 1² in the list must be corrected. ܐܡܐ is the regular 'logogram' for year in Pahlavi. It would give ܐ only the long form in Col. V.

A SILVER DISH FROM THE TYNE.

IN the *Journal of Roman Studies* for last year¹ Professor Haverfield gives an account of certain silver vessels of the late Roman age found on the banks of the Tyne, near Corbridge, in the eighteenth century. I wish to discuss in some detail one of these vessels, which has great importance for the history of late Greek art. This is the remarkable dish or *lanx* found in 1735 on the north bank of the Tyne, now belonging to the Duke of Northumberland, and kept at his castle of Alnwick.

Other vessels of silver were found, not with it, but near the same spot: a two-handled cup, a bowl bearing the Christ monogram, a silver basin, a small silver vase. Professor Haverfield has figured these, so far as he could. That all these vases belonged together is probable though not certain. Only one of them bears a clear indication of date, the Christian monogram, in the form which it takes on coins of the Constantine period. This particular vessel one would naturally give to the time of Constantine, that is, to the earlier part of the fourth century. It does not follow that all the vessels are of this date: but as we shall see presently, it is a date not unsuitable for the dish which we are considering.

There is no reason for connecting with our dish another said to have been found at Risley in Derbyshire in 1729, and published by Stukeley,² which resembles it closely in size and form. This dish has disappeared, and we have only Stukeley's engraving of it to go by. It bears engraved on it the name of Exsuperius, Bishop of Bayeux; evidently it had once belonged to the church treasure of that city. It has a border of pomegranates. In the midst is a boar-hunt, and ranged round the sides are scenes from country life. This dish is of decidedly earlier date than our *lanx*, and as it must have been brought from France we may dismiss it as irrelevant to the present paper.

Unfortunately I have not myself seen the Corbridge dish. But the Duke of Northumberland has kindly allowed Professor Haverfield to examine it and take a photograph. He reports that the size is 19 inches by 15 (about 49 by 37 centimètres), and the weight 148 ounces troy (about 4.6 kilo-

¹ *J.R.S.* 1914, p. 6. The bibliography of the vessel is given at p. 12. I owe to Professor Haverfield a kind permission to repeat his illustration.

² Stukeley, *An Account of a large Silver Plate, etc.*, London, 1736. G. Morin, in the *Mélanges de l'école de Rome*, 18, p. 363, Pl. X., repeats Stukeley's plate.

grammes). The figures are in relief; the inner markings made with a graving tool.

It will be well to begin with a detailed description (Fig. 1). Round the edge runs a border of alternate vine-leaves and bunches of grapes, with vine-tendrils. Below, in the foreground, is a meadow in which plants grow, and in which (from left to right) are, (1) a vase from which water flows in a rocky corner; (2) a dog, wearing collar, looking upwards; (3) a prostrate stag; (4) an altar, a flame on it between fruits; (5) a griffin, looking back at

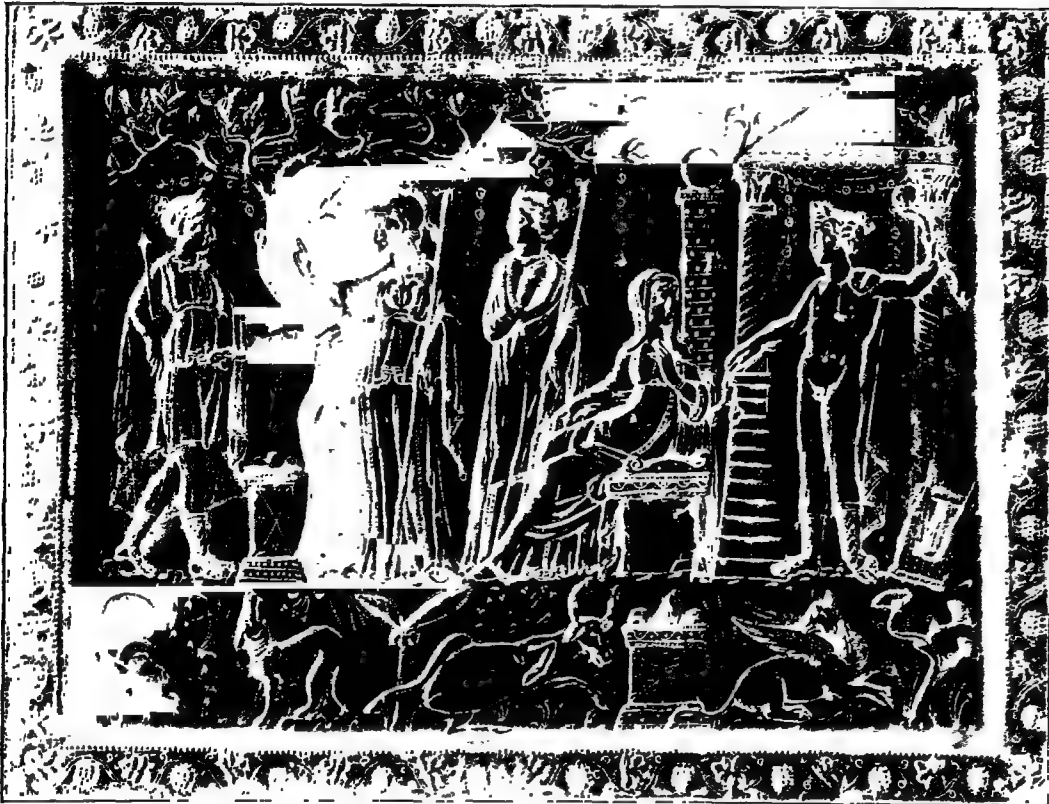


FIG. 1.—SILVER DISH FROM CORBRIDGE.

the altar; (6) a plant, possibly papyrus. In the line above (from left to right) are, (1) Artemis in chiton and cloak, carrying arrow and bow; (2) a tree of uncertain species, in the branches of which are an eagle and nine small birds: beneath it an altar on one side, while a shield rests against it on the other; (3) Athena, clad in chiton and cloak, helmet and aegis, with raised hand addressing Artemis: she holds a spear in the left hand; (4) a standing goddess wrapped in a mantle, a chaplet of pearls on her head: her right hand is raised to her neck, in her left she holds a long sceptre; (5) a seated goddess, veiled,

turning round to address (6) Apollo, wearing cloak over shoulders and boots, who holds in his right hand a laurel-spray over a tall erection: in his left a bow. Behind him is his lyre, which rests against one of the columns of a shrine wherein Apollo stands. This shrine seems to be circular; there is a roof with finials supported by two columns with spiral grooves and acanthus capitals. Behind the seated goddess is a globe resting on a pillar; fillets hang from the roof of the shrine and the tree.

The meaning of the group is not at all obvious. One cannot be surprised that writers who have mentioned it have regarded it as an unmeaning collection of deities. But an ingenious Northumbrian, Mr. Cadwallader Bates,³ suggested that the subject was the Judgment of Paris. He gave no reasons, and identified the figures wrongly. Yet I think that his guess hit the mark. On close consideration I have no doubt that the subject is a late variation on the theme of the Judgment of Paris. This may seem to be a paradox, but the line of descent can be made out quite clearly.

In the earliest literary version of the story, that in the *Cypria*, the award of Paris is decided by the offer to him by Aphrodite of Helen as a bride. In later writers this notion of promises or bribes as determining the decision of Paris is carried further. In the *Troades* of Euripides⁴ the three goddesses fairly compete with promises: Athena promises Paris the conquest of Greece, Hera a wide kingdom in Asia and Europe, Aphrodite offers Helen. And in Isocrates⁵ we have a similar version. In the vase-paintings also, with a few exceptions, no stress is laid on the personal charms of the goddesses, but rather on their promises. On the earliest vases we have merely processional schemes; later the deities stand in order with their attributes: only one very charming vase represents them as beautifying themselves for the competition, Hera looking at herself in a mirror, Aphrodite putting on jewels, Athena washing at a spring.⁶ Later, in paintings at Pompeii, the deities do not usually display their charms. On a few Pompeian paintings, it is true, we have an almost naked Aphrodite,⁷ as sometimes also on Etruscan mirrors: but this is quite exceptional. Thus it is no argument against the proposed interpretation of the dish from the Tyne that the goddesses are draped.

There is no difficulty in recognizing on our lanx Hera in the dignified figure who is seated and veiled, as she often is on Pompeian paintings.⁸ And there is no objection to finding Aphrodite in the figure who holds the sceptre, and raises a hand to her face, this again being an attitude found at Pompeii.⁹ Athena makes her appearance, as usual, in full panoply. Thus our dish fits into the series of representations of the Choice of Paris.

³ *History of Northumberland*, p. 27.

⁴ Line 920.

⁵ *Encomium of Helen*, par. 46.

⁶ *Mon. d. Inst.* iv. 18; cf. *Principles of Greek Art*, p. 305.

⁷ Helbig, *Wandgemälde Campaniens*, No. 1284.

⁸ *Ibid.* Nos. 1282, 1283, 1285.

⁹ *Ibid.* Nos. 1283, 1286; Herrmann, *Denkmäler der Malerei*, Pl. CXIII.

At once, however, the difficulty will be raised that the scene of the Judgment is not Ida but Delphi, and Apollo takes the place of Paris as judge. Apollo is evidently at home in his chief shrine. The altar at his feet and the griffin indicate Delphi, and the fountain Castalia is symbolized by the vase to the left, where a rocky ground is clearly indicated. The presence of Artemis at Delphi would be natural enough. Artemis appears on vases in the scene of the purification of Orestes from his murder, also in one of the mural paintings of the House of the Vettii at Pompeii,^{9a} where the scene of the slaying of the python serpent at Delphi is depicted: Apollo strikes his lyre in triumph, and Artemis stands leaning on a column. I am, however, disposed to think that on the present occasion there is a special reason for the presence of Artemis, a reason to be set forth later.

It seems paradoxical to cite as a representation of the Judgment of Paris a scene where Paris does not appear, and Hermes, the invariable conductor of the goddesses, is also absent, and where Delphi and not Ida is set forth as the place of the event. But we are justified in doing this because we have proof, in several of the vases of Italian origin, that in one of the versions of the myth current in Hellenistic times Paris was thus superseded by Apollo.

We have first a vase at Vienna of the fourth century B.C.¹⁰ on which, though Paris is present, the scene is shown to be Delphi by the presence of Apollo leaning against his laurel, and a tripod. Later, Paris disappears, as on an Apulian vase,¹¹ where we have the three goddesses and Hermes, but no Paris, at Delphi, which is indicated by the sacred omphalos; and on either side of the omphalos we have figures of Zeus and Apollo. Apollo is seated as one at home, and Zeus is addressing him, evidently referring to him the point in dispute. A noteworthy detail is that here Aphrodite, who rides on a swan, holds a sceptre, and raises her hand to her neck in a fashion not unlike that shown on our dish. On another Italian vase,¹² where the scene is still Delphi, as is shown by the presence of the omphalos, Zeus and not Apollo is seated on a throne as arbiter.

It may be said that these somewhat erratic variations of the Italian vase-painter scarcely furnish us with proof that the transference of the scene from Ida to Delphi had made its way into the accepted mythology. We may, however, observe that there is some literary justification for taking Delphi as the scene, since in the beginning of the *Cypria* the whole series of events which began with the wedding of Peleus and Thetis and culminated in the taking of Ilium originated in a plan formed by Zeus and Themis, who was Apollo's predecessor at Delphi. Moreover in the Hellenistic age it was natural to think of Apollo in his Delphic shrine as the great arbiter in all serious matters of dispute. I think therefore that we are justified in supposing that the Apulian Vase-paintings do represent an actual shifting of the tradition, though of

^{9a} *Monumenti dei Lincei*, viii. Pl. XI. 3.

¹⁰ *Vorlegeblätter*, E. xi. 1.

¹¹ *Ibid.* A. x. 2.

¹² *Ibid.* A. x. 1.

course in poetry Paris still figures as the judge. Some people may think that though the origin of the scene on the dish may be traced to representations of the judgment of Paris, the artist was unaware of that origin, and intended only to represent a group of deities. But I think that this view does not do him justice; his procedure is not so mechanical and imitative as this suggestion would imply.

There are two features of the scene which it is by no means easy to explain. One of these is the globe set up on a lofty pillar. On a coin of Samos, struck under Trajan Decius,¹³ the reverse represents Pythagoras seated, and in front of him a globe on a column. Here the reference is clearly to the astronomical studies attributed to Pythagoras. On our dish the reference may be to something set up at Delphi, one of the sacred dedications. Thus in one of the Pompeian paintings¹⁴ a vessel appears behind Hera raised on a high column. It has, however, been suggested to me that the globe may belong to Hera who is seated close by it, and refer to her rank as queen of the gods. Another feature hard to explain is the basis on which the hand of Apollo rests. Is it an altar? If so, it is of very unusual form. It could scarcely be the omphalos; so we must leave it unexplained.

The bird in the tree, which I have called an eagle, has been by some regarded as the raven of Apollo, but the beak seems conclusively that of an eagle. Eagle and raven alike would be suitable at Delphi: the former is mentioned in the *Ion* of Euripides as haunting the spot, which it still does.

The beautiful border of alternate vine-leaves and bunches of grapes has parallels in other works of the time, such as the casket of Secundus and Projecta in the British Museum;¹⁵ it appears also in the bands of ornaments on the mattress represented on the great Sarcophagus of Melfi, a work of the Antonine age, to which I will presently return.

It will strike anyone familiar with late classical art how pleasing are the types of the deities. They are survivals from a good period of art. The hair of Apollo, fastened in a knot at the back of the head, takes us back to the style of the third century B.C. The other figures are of not unusual character. For the separated field below, with its animals and plants, we may find parallels in vases of the South Italian class, where the field below is separated from the main subject by lines of dots, and in the field so separated plants grow.¹⁶

The date of our lanx may be decided by various considerations. The readiest comparison is with the medallions of gold and bronze issued by the Roman Emperors, which form an excellent index of style.¹⁷ Especially if one compares with these medallions the way in which the eye is rendered one will judge our lanx to be not earlier than the end of the third century A.D., or than the reign of Diocletian. Another indication of date points to the

¹³ *Cat. Greek Coins in Brit. Mus.: Ionia*, p. 61, Pls. XIII.-XVIII. Pl. XXXVII. 14.

¹⁴ Helbig, No. 1286.

¹⁵ *Catalogue of Early Christian Antiquities*,

¹⁶ Millin, *Peintures des Vases*, ii. 37.

¹⁷ F. Gnecchi, *I Medaglioni Romani*.

same period. This is the character of the columns of the shrine of Apollo, with spiral flutings and acanthus capitals. These closely resemble the columns on ivory diptychs of the third and fourth centuries, such as one in the Bibliotheca Quiriniana at Brescia,¹⁸ and one in the Treasury of the Cathedral at Monza.¹⁹ We may also compare the columns on sarcophagi, such as the Cook Sarcophagus, published by Strzygowski,²⁰ and the Sarcophagus at Melfi.²¹

The curious way in which Athena stretches out two fingers probably results from the familiarity of the artist with the position of the fingers in the Christian act of benediction. Compare, for example, the Throne of St. Maximian at Ravenna.²²

Originality and vigour are no doubt wanting in our dish. The design obviously belongs to a time of decline in art. But the execution is very careful and precise. It clearly is the work, not of an inventive artist, but of a long-established and well-trained school. In its fabric we can see the results of many generations of careful artificers.

The most remarkable feature of the dish is its combination of a distinctly late style with a strong Hellenistic tradition, indicating a continuity with the art of the latest centuries B.C. It may serve to give us a notion of the kind of plate in use in wealthy families in the last age of Paganism, and even to enlarge our view of the art of the great cities of the eastern Roman world in that age. In spite of the labours of Schreiber, Strzygowski and other writers, the art work of the great cities of Asia in the Roman Age is very imperfectly known to us: there are many *lacunae*, one of which our dish does something towards filling.

I must, however, turn to another class of monuments which have something in common with our dish, and in particular have a similar close dependence upon the later works of Greek art, and are independent of Roman influence. I refer to the group of Sarcophagi of the age of the Severi, of which perhaps the most remarkable is that of Sidamara. T. Reinach,²³ Strzygowski,²⁴ Mendel and other writers have dealt with this class of monuments very thoroughly. The general opinion regards them as made in Asia Minor; and this is probably right, though examples have been found elsewhere, in Italy, Greece proper and Bithynia. Strzygowski thinks, however, that they started from Antioch; a view which it is hard either to prove or to disprove, in view of our very slight knowledge of the art of Antioch. In any case, their inspiration, if inspiration it can be called, is purely Greek. The types of the deities on them are largely taken from the school of Praxiteles.

Taking the Sidamara Sarcophagus as the best type, and its front²⁵ as the most important side, we find six figures. In the midst the deceased sits

¹⁸ Gori, *Thes. Dipt.* iii. Suppl. Pl. XVI.

¹⁹ *Ibid.* ii. Pl. VIII.

²⁰ *J.H.S.* 1907, Pls. V.-XX.

²¹ *Antike Denkmäler*, iii. XXII.-IV.

²² *J.H.S.* 1907, p. 116.

²³ *Monuments Piot*, ix. p. 189, Pls. XVII.-XIX.

²⁴ *Orient oder Rom* and *J.H.S.* 1907.

²⁵ *Mon. Piot*, ix. p. 199, Pl. XVII.

holding a scroll. The type might be taken from an Attic Sepulchral Relief of the fourth century. Before him stands his wife, a figure from the repertory of Praxiteles, and behind him an Artemis with drapery girt up, a pleasing Hellenistic type. At the two ends are the Dioscuri, Castor and Pollux, each holding a horse. We do not know the reason for selecting these deities rather than others; but the artistic effect of the whole is very pleasing. The besetting sin of later Greek art was to prefer style to meaning, just as it was the besetting sin of later Greek literature to tend to a rhetorical extreme, to prefer words to thought. Similar in character is the Sarcophagus of Melfi. There on the front are deities who cannot be all with certainty recognized, but who seem to be (from left to right) Apollo Citharoedus, Ares, Cora, Plutus, and Hades. For the choice of the last three a connection with the Mysteries at Eleusis may account; but here again style is more than subject.

It seems that there is this difference between the Sarcophagi and our dish, that the former go back for their art-types to a somewhat earlier period: but the general character is not dissimilar.

Another class of monuments which might well be compared with our lanx is the very abundant bronze coins issued in the cities of Asia Minor under the Severan Emperors and their successors. This is an almost unexplored field. Apart from the volumes of the *British Museum Catalogue of Greek Coins* which deal with Asia Minor, it would be difficult to find adequate representations of any large series of these coins. But cities like Smyrna and Tarsus offer us on their local issues struck in the third century an almost endless series of types of deities and mythologic scenes. The art of these coins is usually very poor, and their execution hasty, but at least they prove that Greek art of a distinctly Hellenic type remained in favour in the great cities of Asia until the definite triumph of Christianity.

This long survival of a purely Hellenistic art is a fact worthy of consideration. It shews the superficiality of the common opinion that art of the Roman Age is Roman art. There is a period, beginning with the Ara Pacis of Augustus, and ending with the Column of Antoninus when, at least in Italy, there was a truly Roman art. It is Roman in the same sense in which the *Aeneid* is Roman; that is, though the artistic forms are Greek, yet they are used for Roman purposes, and so transformed. In most Roman monuments of the age one can see how Greek and Roman elements stand side by side without intermingling. For example in the reliefs of the arch of Trajan at Beneventum we have in juxtaposition groups of Trajan and his officers, and purely Hellenistic figures such as river-gods, and even the deities of Olympus. In the noblest and most national monument which Rome ever produced, the Column of Trajan, the Roman element vastly preponderates. In every scene Trajan and his officers are the central figures: and it is the deeds of Roman soldiers which inspire the sculptor. Only here and there such ideal figures as the River Danube, Night, the Rain-God, give a touch

of poetry to the scene. The sculptors were no doubt Greeks; but they are carried away by the seriousness and majesty of the theme: it is only the hand which is Greek: the purpose is Roman.

But when we come to the Column of Antoninus this historic Graeco-Roman art is in a state of complete decay. All its vigour and life are gone. Between this column and that of Trajan lies the Hellenic drift of the age of Hadrian. Henceforth until the time of Constantine there is in the Roman elements of the historic trophies and monuments nothing but degeneracy. The Greek elements in those monuments stand the wear of time better. There is still in the age of the Antonines, and even of the family of Severus much in the line of Greek art which is formal, uninventive, rather empty, yet which has much elegance. It is like the beauty of an elderly woman of whom we say that she must at one time have been very handsome.

In the Roman Age Roman art never really amalgamates with Greek. They flow on together like the Rhône and the Saône in one bed, but not intermixed. And it is the Roman element which first dies out, or survives in mere wooden lifelessness. The inherent vitality of Greek art, as art, carries it on for a long time.

In the cities of Asia Hellenistic art went on under the Roman Empire almost untouched by Roman influence, until it was strangled by the rise of Christianity. And even then something of its graciousness and charm went on into Christian art, as we may see especially in that best continuous record of art-changes from the ancient to the modern world which is furnished us by the ivory tablets of which there are such admirable series in the South Kensington and Ashmolean Museums.

And when at the time of the Renaissance art revived or awoke from slumber it was the sculpture of the age of the Antonines from which it took its departure. Apart from the Christian element, it may be said, almost with accuracy, that the art of the fifteenth century in Italy continues the line which had been stretched from the early art of Ionia to the times of Hadrian. To an age which was in strong revolt against the narrownesses and restrictions of Christianity, the monuments of the age of the Antonines which were still to be seen in Rome and Italy seemed a revelation of a wider and a more beautiful world.

These facts will be illustrated fully if we compare our dish with the splendid examples of Roman plate of the early Imperial age found at Bosco Reale and Hildesheim. On the cups of Bosco Reale we find depicted the glory of Augustus, the triumph of Tiberius, Roman sacrifices and the like, while the presence of the deified Roma, of Mars, of the Genius of the people, redeem the scenes from the commonplace. We are in an absolutely different region in our dish from the Tyne. There is here no history, but only poetry, and charming art-forms which have lost much of their original significance.

In the case of other silver vessels of the third and fourth centuries, such as the cups and dishes in the British Museum from France, the silver

find at Carthage,²⁶ and the dish from Bayeux already mentioned, the scenes represented on them are taken, not from mythology, but from pastoral life. Especially shepherds and their sheep abound. In these latter scenes one may read with some probability a Christian meaning, since the Good Shepherd is one of the earliest subjects of Christian art. Pastoral scenes, and events of country life, figure largely on late Pagan and early Christian Sarcophagi. And in the wall-paintings of the Catacombs, some of the earliest scenes are from the vintage and the harvest and sheep-tending, with one or two figures of symbolic Christian meaning, Orpheus or Psyche or the Good Shepherd, modestly introduced. These silver vessels and wall-paintings alike seem to belong to the Roman sphere of influence.

The silver casket in the British Museum which bears the names of Secundus and Projecta and was found on the Esquiline at Rome²⁷ differs from these vessels as to subjects, some of which are scenes from life, such as the bringing home of the bride; but others are taken from the Hellenistic mythological repertory, Tritons and Nymphs riding on sea-monsters, little figures of Eros; even Aphrodite in a great sea-shell. The casket being distinctly Christian, as is proved by the inscription on it, 'Vivatis in Christo,' this insertion of a heathen goddess is very curious. Winged genii and sea-monsters are only poetry, but Aphrodite is a powerful figure of heathen cult.

More undiluted is the Paganism of the Corbridge dish. It owes scarcely anything to Rome or to Christianity: but is a purely Hellenistic work out of due time.

Late Hellenistic art is of course conventional. M. Théodore Reinach characterizes it truly, if somewhat severely, when he writes: 'Cet art confus et agité s'épuise sans conviction, mais non sans ingéniosité, à combiner et à varier de vieilles formules, dont le sens lui échappe de plus en plus.'²⁸ Our generation, in particular, is hard upon this kind of art: we prefer attempts, however rude, which shew promise of a future, to works which only stand in the light of the setting sun. But, after all, art has a continuous history, and conservative schools have a place in that history as well as innovating schools. Early Christian art learned a great deal from the Greek art of the Decadence. But for it, Christian sculpture might have lost all sense of form, and such delightful creations as the angels of Amiens would have been wanting to our Cathedrals.

If I venture to suggest an actual place of production for our dish, I go beyond the conclusive evidence. It must doubtless have been brought to Britain from some great Hellenistic city, where Roman influence was scarcely felt. Three names of such cities especially occur to us, Alexandria, Antioch, and Ephesus. Alexandria seems to be excluded. We are acquainted with Aegypto-Greek art from the great museums of Egypt, and the works of Schreiber and other writers: it has

²⁶ These are catalogued and engraved in the *Brit. Mus. Catalogue* of silver plate.

in the *British Museum*, p. 61, Pls. XIII.-XVIII.

²⁷ *Catalogue of Early Christian Antiquities*

²⁸ *Monuments Piot*, ix. p. 199.

a mixed character, and is not pure Hellenistic; the old art and religion of Egypt count for something with it. As to Antioch, we are not well enough acquainted with the characteristics of its art in the late period to say much about it. But the coinage of Antioch has a distinctly Roman character, very different from that of the cities of Ionia and Phrygia. Asia Minor certainly has a better claim to our dish.

Certain indications, not conclusive, but not to be despised, seem to point to Ephesus. The presence of Artemis in the scene of judgment I believe to be without example, and naturally so, for a confusion might easily arise between her and the three goddesses. Moreover, on our dish, an altar appears before her; and her dog and stag are figured beneath: some emphasis is laid upon her. And she is more than superfluous, she seems even intrusive. If she were away, and the two goddesses who turn towards her were looking the other way, the scene would be more intelligible. Now Artemis had no particular shrine at Delphi. But if the dish were made at Ephesus, what more natural than to insert Artemis in the scene, and to lay stress on her? It was especially as a huntress that the Greeks at Ephesus worshipped Artemis. On bronze coins struck at Ephesus as late as the time of Valerian and Salonina (253-260 A.D.) Artemis occurs frequently as a huntress, with bow, dog, and stag: and notably a tree, to shew how the goddess haunts woods, is placed in the background.²⁹ We know, from the well-known incidents recorded in the *Acts of the Apostles*, that there existed at Ephesus in the first century A.D. a powerful guild of workers in silver, who made for sale copies of the shrine of the goddess Artemis. It is quite clear that the members of this guild would also make silver plate for the wealthy: and since the worship of the goddess was flourishing at Ephesus until the complete downfall of Paganism, even after the Gothic ravages of A.D. 260, this guild would persist. I am therefore disposed, tentatively, to assign our dish to Ephesus. Whether this be the case or not, it is of great interest for the history of the latest period of Greek Art.

P. GARDNER.

²⁹ *Brit. Mus. Cat. Ionia*, pp. 104-107.

A BYZANTINE TREATISE ON TAXATION.

I

THE little treatise which follows is in a manuscript of the Marciana at Venice—*gr. fondo antico*, 173 (late twelfth century). It throws considerable light on the system of taxation in the later Empire, and explains a good many technical terms which one meets with in the documents. So far as I know, it has never been published. Even if it has, it deserves to be published again. I hope in a future number to say something of its contents. I have numbered the paragraphs for convenience of reference. The treatise begins on f. 276 v. of the manuscript. I reproduce the spelling and accentuation of the manuscript. In some cases I may have gone wrong in enlarging the abbreviations, which are numerous.

W. ASHBURNER.

(1) *ρίζα χωρίου* ἐστὶν ἡ ὅλη ποσότης τῶν ἐν τῇ συγγραφῇ ἐκάστου χωρίου κειμένων ψηφίων· συμπεριάγονται γὰρ τῷ λόγῳ τῆς ρίξης τελούμενα, συμπάθειαι, ἀποκεκνημένα καὶ ὀλόπτωτα, ὀρθώσεις, κλάσματα, λιβελλικά, λογίσμα παντοῖα, σολέμνια, τόποι ἀποσπανθέντες οὐ μέντοι γε ἰδιοστατηθέντες εἴτε ἰδιοπεριορισθέντες ἀλλ' ἐν μέσῳ τῆς ὑφῆς τῶν ὅλων διορίων κείμενοι, ἀγροὶ ὁμοίως οὐκ ἰδιόστατοι ἀλλ' ἐν μέσῳ κείμενοι, προύσθεια συναγόμενα, στασονόμα (?), καὶ ἅπλως πάντα ὅποσα μέρη εἶναι τοῦ προκειμένου χωρίου διαγινώσκονται. ἡ γὰρ ἐκ τούτων ἀπάντων ὁμὰς ρίζα καλεῖται διὰ τὸ συνέχειν ταῦτα πάντα καὶ εἰς μίαν ὀλότητα συνιστᾶν. διὰ γὰρ τοῦτο καὶ οἱ ἀκριβεῖς νοτάριοι ταῦτα πάντα συμψηφίσαντες λέγουσιν· ὅμου ἡ ὅλη ρίζα ὡς ἐν τύπῳ εἰπεῖν νομίσματα ρ· ἐξ αὐτῶν τελούμενα τόσα· κλάσματα καὶ συμπάθειαι τόσαι· λογίσμα τόσα καὶ ἕξις εἴ τι ἕτερον ἐν τῷ χωρίῳ εὑρίσκεται.

ὥσπερ δὲ ρίζα ἡ ἀπὸ τῶν ὅλων ψηφίων ὁμαδευομένη ποσότης καλεῖται, οὕτως πάλιν ὑποταγὴ χωρίου ὀνομάζεται πᾶσα ἡ ἀπὸ τῆς γῆς σύστασις ἢ τοῖς ὅλοις τούτοις κεφαλαίοις ἀνήκουσα ἢ μᾶλλον εἰπεῖν ἡ κατακερματιζομένη εἰς τὰ τούτων ἀπάντων ψηφία καὶ μηδὲν ἕξωθεν τῶν ὅλων τοῦ χωρίου δικαίων παραλιμπάνουσα.

(2) ἐπιβολὴ δὲ καὶ τῆς ρίξης ἰκάνωσις γίνεσθαι λέγεται ὅταν, τῆς ὅλης τοῦ χωρίου ἀναμετρηθείσης ὑποταγῆς, ὁ ἀκριβὴς διαγνωσθῇ

μοδισμὸς ἐκ τῶν κατατομῶν καὶ ἀντιπαρατεθῇ τὸ τοῦ μοδισμοῦ ποσὸν τῷ τῆς ρίζης ποσῷ καὶ καταψηφισθῇ καὶ ὅπερ ἀναλογοῦν ἐκάστω εὔρεθῇ. ἤγουν τεθείσθω δὲ καθ' ὑπόθεσιν χωρίου τί ὑπάρχουν δι' ὅλης αὐτοῦ τῆς ὑποταγῆς μοδίων χιλίων. ἔστω δὲ καὶ ἡ ρίζα ἡ ἀπὸ τῶν ὅλων τούτων ὡς δεδῆλωται κεφαλαίων συναγομένη νομίσματα ρ. ἀναλογεῖ οὖν ἐκάστω νομίσματι γῆ μόδιοι δέκα. λέγει γὰρ ὁ ψηφίζων δέκακις ἑκατον α'. ὅπως δὲ ὁ ἀκριβὴς μοδισμὸς καὶ ἡ ἀλήθεια τῆς ἐπιβολῆς καὶ ἡ ἀνεπισφαλὴς ἰκάνωσις ἀπὸ τῶν κατατομῶν μᾶλλον εὐρίσκεται, ἐν τῇ τοῦ μέτρου διδασκαλίᾳ εἰρήκαμεν.

κτῆσις καὶ τὸ χωρίον εἰς μὲν τὰ ἄλλα πάντα τυγχάνουσι τὰ αὐτά· κατὰ τοῦτο δὲ ἀπὸ τοῦ πολλοῦ χρόνου διέφερον, ὅτι τοῦ μὲν χωρίου ἡ καθέδρα μία καὶ τῶν χωριτῶν αἱ οἰκῆσεις ἐν τῷ αὐτῷ καὶ ἀλλήλαις γειτονικῶς ἐ [f. 277 r.] πλησίαζον, τῆς μέντοι γε κτήσεως αἱ καθέδραι πολλαὶ καὶ τῶν οἰκητόρων αἱ οἰκῆσεις διεσπαρμέναι καὶ ἀλλήλων πολὺ ἀποδιηρημέναι ἐτύγγανον, ὅπου δηλαδὴ τὸ ἐκάστου κτησείδιον ἔκειτο· διὸ καὶ χωροικοδοεσπότης ἡ ἀπὸ χωροικοδοεσποτῶν δοκοῦσιν εἶναι οἱ ἐν τοῖς κτήσεσι καὶ οὐχ ἀπλῶς χωρίται.

(3) ἄλλο ὑπάρχει ἀγρὸς καὶ ἄλλο ἀγρίδιον· ἀγρὸς γὰρ ἐστὶ πᾶς κεκαλλωπισμένος χώρος· ἀγρίδιον δὲ μέγαλον χωρίου ἀποδιαίρεσις μερική, μερικὸν δὲ καὶ τὸν καλλωπισμὸν ἔχουσα, διὸ καὶ ἀγρίδιον διὰ τὴν εὐτέλειαν ὀνομάζεται ὥσπερ πόλις καὶ πολεῖδιον. ἐγένοντο δὲ τὰ ἀγρίδια εἴτε ἀπὸ τοῦ μὴ ἀναπαύεσθαι τινὰς τῶν χωριτῶν ἐν τῇ καθέδρᾳ τοῦ χωρίου, εἴτε ἀπὸ τοῦ μὴ κεκτήσθαι τοῖς ἄλλοις ἐπίσης τὰ λεγόμενα ἐνθύρια περιβόλα καὶ διὰ τοῦτο μεταστήσαντας τὰς οἰκῆσεις αὐτῶν ἐν μέρει τοῦ ὅλου χωρίου καὶ καλλιεργήσαντας καὶ ἐγκατοικήσαντας. ἴσως γὰρ πατέρες τινῶν ἐν πολλοῖς παισὶ τελευτήσαντες, τοῖς μὲν αὐτῶν τὰ ἐσώθυρα ἃ εἶχον ἐν τῷ χωρίῳ κατέλιπον, τοῖς δὲ τὰ ἐξώθυρα. οἱ οὖν ἐν τοῖς ἔξω χωρίοις τὴν γονίκτην αὐτῶν κληρονομίαν ὑπολαβόντες, μὴ δυνάμενοι πόρρω ταύτης καθῆσθαι καὶ ζῆν, μετέστησαν ἐκεῖ, καὶ τὰς οἰκῆσεις αὐτῶν καὶ τὸν τόπον βελτιωσάμενοι εἰς ἀγρίδιον τοῦτο μεταπεποιήκασιν. ἄλλοι δὲ πάλιν ἢ βοσκήμασι καὶ δούλοις πληθυνθέντες, ἢ παρὰ γειτόνων στενοχωρούμενοι πονηρῶν, καὶ μὴ δυνάμενοι ἐν τῇ τοῦ χωρίου καθέδρᾳ οἰκεῖν, μετέστησαν ἐν μέρει τινὶ τῆς ὅλης ὑποταγῆς τοῦ χωρίου, καὶ ὁμοίως βελτιωσάμενοι τὸ αὐτὸ πεποιήκασιν. καὶ πολλὰς ἂν εὔρης ἀφορμὰς ἐρευνῶν ὅθεν συνέστησαν τὰ ἀγρίδια.

(4) τὰ μὲντοι γε προάστεια τὸν αὐτὸν μὲν ἔχουσι τούτοις τῆς γενέσεως τρόπον. διαφέρουσι δὲ ἐν τῷ παρὰ τοῖς προαστείοις μὴ τοὺς δεσπότης αὐτοὺς τὴν κατοίκησιν ἔχειν ἀλλὰ τινὰς τῶν ὑπ' αὐτοὺς δούλους ἢ μισθίους καὶ λοίπους. ἀλλὰ ταῦτα μὲν περὶ τῶν ἀγριδίων καὶ προαστείων τῶν συμπεριριζομένων τῇ ὅλῃ τοῦ χωρίου ὑποταγῇ.

(5) τὰ γὰρ ἰδιόστατα λεγόμενα ἀγρίδια καὶ προάστεια τοῦτον τὸν τρόπον γεγόνασι. τῆς χώρας ἐξαλιφείσης ἀπὸ τινος ἴσως ἐθνῶν ἐπιδρομῆς ἢ τινὸς [f. 277 v.] ἄλλης θεομηνίας, καὶ τῶν περιλειφθέντων προσχώρων κινδυνεύοντων καὶ αὐτῶν μεταναστεῦσαι διὰ τὸ καθέλκεσθαι καὶ ὑπὲρ τῶν ἐξαλιφέντων, ἐξῆλθεν ἐπόπτῃς ἀπὸ τοῦ βασιλέως σταλείς, καὶ ἀνερευνήσας συνεπάθησε τὸ τέλος τῶν εἴτε ἐξ ὁλοκλήρου εἴτε μερικῶς ἐξαλιφέντων στίχων. εἰ μὲν οὖν ὑποστρέψουσιν οἱ κληρονόμοι οὗτοι ἐντὸς τῆς τριακονταετίας, ἢ

συνπάθεια αὐθις ὀρθοῦται· εἰ δὲ μὴ ὑποστρέψουσι καὶ ἡ τριακονταετία παρέλθῃ, στέλλεται ἄλλος αὐθις ἐπόπτης, καὶ ἀπολύει εἰς κλάσματος προσγράψῃν τὴν προτέραν ἐκείνην συνπάθειαν. τούτων δὲ οὕτως γινομένων, εἰ πολλάκις ὁ κλασματίσας ἐπόπτης ἢ μετ' αὐτὸν ἕτερός τις ἐν ἰδιάζοντι μέρει ἀποδιαίρησει τὴν ἀνήκουσαν γῆν τοῖς κεκλασματισμένοις τούτοις στίχοις καὶ περιορίσει καὶ τῷ σεκρετικῷ παρεκτῷ (?) προσγράφεται· ἰδίως δὲ ποιήσει καὶ καταστρώσει καὶ τὸν περιορισμὸν τῆς καταλειφθείσης ἐτέρας ὑποταγῆς τοῦ χωρίου· καὶ μετὰ τοῦτο ἡ κεκλασματισμένη αὐτῇ ἀποδιαίρεσις ἢ πραθῇ ἢ δωρηθῇ ἢ ἐκκληπτορικῷ δικαίῳ ἢ πακτωτικῷ ἐκδοθῇ ἢ σεκρέτῳ τινὶ ἀνατεθῇ καὶ οὕτως ἐνοικισθῇ καὶ βελτιωθῇ, τηνικαῦτα διὰ τὸ ἐν ἐτέρῳ ὑποπεσεῖν περιορισμῷ καὶ οὐκ ἐν τῷ περιορισμῷ τοῦ ὅλου χωρίου συννπάγεσθαι, ἰδιόστατον λέγεται ἀγρίδιον ἢ προάστειον. ἰδιόστατον γάρ ἐστι τὸ δι' ἐπόπτου κλασματισθὲν καὶ δι' ἐπόπτου ἐκ τῆς ὑποταγῆς τοῦ χωρίου διαιρεθὲν καὶ περιορισθὲν καὶ ἐν ἰδιάζοντι μέρει ἀφορισθὲν, ὥστε μήτε εἰς κατατομὰς εἶναι μήτε ἀνακοινώσεις ἔχειν μετὰ τῆς λοιπῆς ὑποταγῆς τοῦ χωρίου.

ἔστι δὲ ὅπου τῶν χωρίων ἀπὸ παλαιοῦ ὠκισμένων ὄντων καὶ κηνσενομένων ἢ μετὰ τοῦτο ἐνοικιζομένων καὶ δημοσίοις κανόσιν ὑποβαλλομένων ἢ ἐπορθουμένων εἰς ὅσον ἔδει ἐκάστῳ ἐπιτεθῆναι τέλος, τῶν μὲν χωρίων τούτων γεγόνασιν περιορισμοί, ἀπελείφθη δὲ τις τόπος μέσον τῶν χωρίων αὐτοῦ κείμενος καὶ παρὰ μηδενὸς ἐπιζητούμενος, εἴτε ὡς περιττὸς εἴτε ὡς τηνικαῦτα μὴ χρησιμεύων, ὃς οὐδὲ περιωρίσθη τῷ τότε οὐδὲ προσεγράφῃ τῷ κώδικι· μετὰ δὲ χρόνους τινάς, ἐπειδὴ ἡ τοῦ κύκλου φορὰ πολλάκις οἶδε μεταφορὰς ἀπεργάζεσθαι, εὗρέθη τὸ τοιοῦτον ἀδέσποτον τόπιον ὑπὸ τινος τῶν σταλέντων ἐπόπτων εὐχρηστον ἴσως δὲ καὶ παρὰ τινων νεμόμενον ἢ ζητηθὲν νέμεσθαι ἐπὶ τῷ συμφωνουμένῳ δημοσίῳ κανόνι. τοῖνυν καὶ παρὰ τοῦ τοιοῦτου ἐπόπτου ἐδημοσιεύθη τὸ παρὸν τόπιον καὶ προσεγράφῃ ἐν ἰδιάζοντι στίχῳ μετὰ τὴν τοῦ χωρίου τούτου ὁμάδα, εἴτε καὶ περιορισθὲν εἴτε καὶ μὴ περιορισθὲν. λέγεται γὰρ καὶ τοῦτο ἐπίσης τοῖς ἄλλοις ἰδιόστατον καὶ τὸ ἐπιτεθὲν αὐτοῖς δημόσιον προσθηκὴ. πλὴν κατὰ τοῦτο διαφέρουν ἐκείνων ὅτι ἐκεῖνα μὲν τὴν αὐτὴν ἐπιβολὴν ἔχουσιν ἀφ' ὧν ἀποδιηρέθησαν χωρίων κατὰ τὴν τῶν συμπεπαθμένων δηλαδὴ καὶ κεκλασματισμένων στίχων ἀνήκουσαν ἐπιβολὴν, ἐπειδὴ καὶ ἀπὸ χωρίου εἰσὶ· ταῦτα δὲ οὔτε ἀπὸ χωρίου εἰσὶν οὔτε τὴν αὐτὴν ἐπιβολὴν ἀναγκάζονται ἢ ἀναγκάζουσι τινὶ τῶν χωρίων ἔχειν, ἀλλ' ἰδίαν καὶ ὅσῃν λαβεῖν ἔτυχον ἀπὸ τῆς αὐτῶν κηνσεύσεως εἴτε πλείονα [f. 278 r.] εἴτε ἐλάσσονα.

(6) ἰδιοστάτων τάξιν ἐπέχουσι καὶ τὰ προκατεσπασμένα λογίσιμα. ταῦτα γὰρ τὰ λεγόμενα προκατεσπασμένα λογίσιμα ἐγίνοντο ἐν τοῖς ἀνέκαθεν χρόνοις παρὰ τῶν πόλυ προτετελευτηκότων βασιλέων καὶ ἄχρι τῆς βασιλείας, ὡς λέγεται, τοῦ φιλοσόφου κυροῦ λέοντος, ἐγίνοντο δὲ οὕτως. προσέταττεν οὗτος ἢ οὗτος ὁ βασιλεὺς τοὺς δημοσίους κανόνας τῶν ὑπαρχόντων κτημάτων τῷδε ἢ τῷδε τῷ ξενῶνι ἢ τῷ γηρωκομίῳ ἢ τῷ μοναστηρίῳ ἢ τῇ ἐκκλησίᾳ ἢ ἐτέρῳ τινὶ μὴ ἐπιζητεῖσθαι ἀλλ' ὡς δωρεὰν βασιλικὴν αἰδίως καταλιμπάνεσθαι καὶ λογίζεσθαι. ἐφ' ᾧ καὶ ἵνα μὴ ὑπὲρ τούτων ὀχλῶνται εἴτε οἱ τὴν λογίσιμον ταύτην δωρεὰν ἔχοντες εἴτε οἱ τὴν διοίκησιν ἀπαιτοῦντες καὶ λογαριαζόμενοι, ἐρριζοτομοῦντο παντελῶς καὶ τῶν καταστίχων τῶν διαρίων

ἐξεβάλλοντο οἱ τῶν λογισίμων τούτων στίχοι, καὶ οὐκέτι συνεχωροῦντο συγγεγράφθαι τοῖς ἄλλοις καὶ συμψηφίζεσθαι καὶ συνομαδεύεσθαι· διὸ καὶ προκατεσπασμένα λογίσιμα ταῦτα ἐκλήθησαν, ὡς ἔχοντα δὲ καὶ ταῦτα τὴν ἀνήκουσαν τούτοις γῆν, μηκέτι δὲ εὐρισκόμενα ἐν τῇ ὑφῇ τῶν κωδίκων ὡς συνεισαγόμενα τῇ λοίπῃ ρίζῃ τοῦ ὅλου χωρίου. ἰδιοστάτων καὶ ταῦτα τάξις ἐπέχουσιν· ὅμως εἰ καὶ περιορισμὸν ἴδιον ἔφθασαν εἰληφέναι, πάντως εἰσὶν ἰδιόστατα. εἰ δ' οὖν ὁ τὴν ἐπιβολὴν ποιῆσαι βουλόμενος συνεισάγει ταῦτα καὶ οὕτως τὴν ἰκάνωσιν ἀπεργάζεται. εὐρίσκονται δὲ ταῦτα ὁμαδικῶς μὲν ἐν τῷ λογαριασμῷ τῶν τοῦ οἰκιστίκου χαρτίων κείμενα· ἐλογαρίασε γὰρ τὰς διοικήσεις ὁ δηλωθεὶς ἀποικιόμενος βασιλεὺς κύρος λέων, καὶ δεξιόμενος ἀπὸ τῶν διοικήσεων πάντων τῶν θεμάτων τὰ εὐρισκόμενα ἐν ἐκάστῳ τούτου προκατεσπασμένα λογίσιμα, προσεγράψατο μὲν ταῦτα ἐν τοῖς τοῦ οἰκιστίκου χαρτίοις ὁμαδικῶς ὡς δεδηλωται, κατὰ στίχον δὲ τὰ μὲν ἐν τοῖς ἔξω κώδιξι κεῖνται, τὰ δὲ ἐν ταῖς προσοῦσι χρυσοβούλλοις τοῖς εὐαγέσιν οἴκοις· περὶ μὲν οὖν τῶν προκατεσπασμένων λογισίμων ταῦτα.

(7) ἐκτὸς δὲ τούτων εἰσὶ τὰ διαπλάγια (?) λογίσιμα ἥτοι τὰ ἐκπεφωνημένα καὶ τὰ ἀνεκφώνητα, ἐν οἷς οὐ πρόσκειται τὸ τοῦ σολεμνίου ὄνομα, καὶ ἔτι πρὸς τούτοις τὰ λογίσιμα σολέμνια, τὰ αὐτουργὰ σολέμνια, τὰ ἀντισολεμνίων, τὰ σταθέντα λογίσιμα, καὶ τὰ χειρόσδοτα λεγόμενα σολέμνια· ὧν αἱ εἰδήσεις ἔχουσιν οὕτως.

Λογίσιμον λέγομεν ἀπλῶς ἐκφωνούμενον ὅταν τὸ τελούμενον παρὰ τινος δημόσιον ἐκ φιλοτιμίας βασιλικῆς λογισθῇ διὰ κινναβάρεως ἥτοι προσγραφὴν δέξηται διὰ κινναβάρεως περιέχουσιν τὸ “ἐλογίσθη προσώπω τοῦ δέινα ἐπάνω τοῦ οἰκείου στίχου ἐν τῇ παραθέσει τῶν τοῦ γενικοῦ χαρτίων διὰ τινος τῶν βασιλικῶν ἀνθρώπων κατὰ βασιλικὴν πρόσταξιν.”

(8) ἀπλῶς δὲ λογίσιμον ἐκφωνούμενον ὅπερ ὁμοίως ἐλογίσθη προσώπω τοῦ δέινα, οὐ πρόσκειται δὲ τὸ πρόσωπον δι’ οὗ ἐλογίσθη ἀλλὰ καὶ διὰ μέλανος ἔχει τὴν προσγραφὴν.

(9) λογίσιμον δὲ ἐστὶ σολέμνιον ὅταν ὁ βασιλεὺς ἀντὶ τοῦ διδομένου σολεμνίου πρὸς τόνδε ἢ τόνδε τὸν εὐαγὴ οἶκον παρακληθεὶς ὑπὸ τῶν προεστώτων ἢ τῶν λειτουργῶν [f. 278 v.] ἢ τῶν μοναζόντων ἐν τῷ εὐαγεῖ οἴκῳ προστάξῃ, καὶ λογισθῇ ἡ αὐτὴ ποσότης ἀπὸ δημοσίου κανόνος χωρίων τινῶν μὴ ὑποκειμένων τῷ αὐτῷ εὐαγεῖ οἴκῳ, ὥστε τὰ λογισθέντα νομίσματα παρέχεσθαι παρὰ τῶν χωριτῶν ἀντὶ τοῦ διοικητοῦ πρὸς αὐτὸν τὸν εὐαγὴ οἶκον χάριν τοῦ προτέρου σολεμνίου.

ὅταν δὲ ἀντὶ τοῦ τοιούτου σολεμνίου οὐ λογισθῶσι χωριτικά καὶ ξένα δημόσια, ἀλλὰ αὐτὰ τὰ τῶν οἰκείων κτημάτων δημόσια, ὥστε ἀφ’ ὧν ὀφείλει ὁ εὐαγὴς οἶκος λαμβάνειν σολεμνίων ἵνα καταλογίζηται τὰ τελέσματα τῶν οἰκείων κτημάτων, τῆνικαῦτα τὰ τοιαῦτα λογίσιμα λέγονται αὐτουργί λογίσιμα.

(10) ἐπειδὴν δὲ μήθ’ οὕτως μήτ’ ἐκείνως ἢ περὶ τῶν τοιούτων σολεμνίων οἰκονομία γένηται, ἀλλ’ ὁ διοικητὴς προσταχθῇ, καὶ ἀπὸ τοῦ παντὸς ἀκροστίχου οὐ ἀπαιτεῖ τὸ ποσὸν τοῦ σολεμνίου δίδωσι, καὶ οἱ λογαριασταὶ δέχονται τοῦτο, καλεῖται αὐτὸ παρεχόμενον σολέμνιον, καὶ οὐδὲν ὀφελοῦσι τὰ τοιαῦτα ὡς πρὸς ἰκάνωσιν γῆς τῷ λαβόντι. καὶ περὶ μὲν τούτων οὕτως.

(11) τὰ μέντοι γε σταθέντα λογίσιμα οἱ μὲν ἡρμήνευσαν εἶναι τὰ ἀργήσαντα καὶ μηκέτι λογίσιμα εἶναι καταλειφθέντα, οἱ δὲ τὰ παγιωθέντα καὶ κυρωθέντα. ἔδοξε δὲ ἀκριβεστέρα εἶναι ἢ δευτέρα ἐρμηνεῖα· καὶ γὰρ φασιν οἱ ἐξετάσαντες, εἰ ἀπήνθησαν τοῦ εἶναι λογίσιμα, ἔδει ταῦτα ἀπολυθῆναι μετὰ τῶν τελουμένων· ἐπεὶ δ' οὐχ οὕτως ἔχει, ἀλλ' ἔτι καὶ νῦν μετὰ τῶν λογισίμων κεῖνται, δῆλον ἂν εἴη σταθέντα λογίσιμα λέγεσθαι τὰ ἀπὸ χρόνου πάνυ παλαίου εἰληφότα τὴν κύρωσιν. καὶ ἡ μὲν τῶν σταθέντων λογισίμων διάγνωσις οὕτως εἶχε, βασιλικὴ δὲ τις πρόσταξις ἐξουσιαστικῶς ἐκέλευσε μηδ' ὅλως ταῦτα δέχεσθαι.

(12) ἡ συμπάθεια καὶ τὸ κλάσμα ἢ ἐν ὅλῳ τῷ χωρίῳ γίνεται καὶ ἀγριδίῳ καὶ προαστείῳ καὶ τόπῳ ἢ ἐν ὅλῳ τῷ στίχῳ ἢ ἀπὸ μέρους τοῦ στίχου. ἀλλ' ὅταν μὲν ἐν ὅλῳ τῷ χωρίῳ γένηται ἢ ἀγριδίῳ ἢ προαστείῳ ἢ τόπῳ ἢ ἐν ὅλῳ τῷ στίχῳ καὶ οὐκέτι ἐν αὐτῷ καταλιμπάνηται τελούμενον ἕτερον, ἀλλὰ πάντες οἱ στίχοι συμπεπαθημένοι ὑπάρχωσι, τῆνικαὶ τοῦτο καλεῖται ὀλοσυμπάθητον, μετὰ δὲ τὴν τριακονταετίαν, εἰ μήπω ἐντὸς ταύτης ὀρθωσις γένηται, γίνεται ὀλόπτωτον. ὅταν δὲ ἐν ὅλῳ τῷ στίχῳ, εἰ μὲν ὁ τελεστής τοῦ στίχου οὐκ ἐτέλει καὶ ἕτερον στίχον ἀλλὰ μόνον τὸν παρόντα, καὶ συμπάθεια ἐγένετο ἐν ὅλῳ τῷ στίχῳ τούτῳ καλεῖται καὶ ὁ στίχος οὗτος ὁμοίως ὀλοσυμπάθητος. ἐὰν δὲ διάφορον ἐτέλει, καὶ οἱ μὲν ἐκ τούτων πάνυ συνεπαθήθησαν, οἱ δὲ συνεχωρηθήσαν αὐθις τελεῖσθαι, δοκοῦσιν οἱ τοιοῦτοι στίχοι μᾶλλον εἰκέναι τοῖς ἀποκεκινημένοις ὥς πρὸς τὴν ὀλότητα τῆς τελουμένης παρὰ τοῦ τελούντος αὐτούς, καὶ οὐ λέγωνται τοῦτο καὶ ὀλοσυμπαθητοὶ εἶναι εὐρίσκονται. καὶ γὰρ ὥσπερ ἐν τοῖς ἀποκεκινημένοις οἱ κληρόνομοι τὸ μὲν τελεῖ τὸ δὲ συμπαθεῖται, οὕτως καὶ ἐνταῦθα ὁ κληρόνομος τοὺς μὲν τῶν στίχων συνεπαθήθη μὴ τελεῖν, τοὺς δὲ τελεῖ. [f. 279 r.] ἀποκεκινημένοι γὰρ εἰσιν ὧν τὰ μὲν τελοῦνται τὰ δὲ συμπεπαθημένα τυγχάνουσιν· ἡγουν ὥς ἐν τύπῳ εἰπεῖν, ἀπὸ νομισμάτων γ, τελούμενα μόνα νομίσματα β, κλάσμα καὶ συμπάθεια νομίσματα α. ὀλοσυμπάθητον δὲ ὧν πρὸς τῷ δεσπότῃ καὶ ὁ κληρόνομος ἀφανής ἐστι. γίνεται δὲ τὸ μὲν ὀλόπτωτον καὶ ὀλοσυμπάθητον κλάσμα, καθὼς ἀνωτέρω εἰρήκαμεν, ὁπνίκα τῶν κληρονόμων ὑποχωρησάντων ἢ πάντων ἢ τινῶν ἀπὸ τινος ἴσως ἐθνῶν ἐπιδρομῆς εἴτε ἄλλης θεομηνίας καὶ τῶν ἐκ γειτόνων καθελκομένων ἀλληλεγγύως ἐπὶ τοῖς ἐκείνων τελέσμασι, καὶ πρὸς μετανάστασιν καὶ αὐτῶν ἀφορώντων, ὁ ἀποσταλεὶς παρὰ τοῦ βασιλέως ἐπόπτης, ἵνα μὴ καὶ οὗτοι ἐξαλιφῶσι, συμπαθήσῃ τὰ τῶν ἐξαλιφέντων δημόσια· καὶ τριακονταετίας παρελθούσης, καὶ τῶν εἰρημένων κληρονόμων δι' ὅλης αὐτῆς τῆς τριακονταετίας μὴ ἀναφανέντων, ἡ συμπάθεια δι' ἐτέρου ἐπόπτου εἰς κλάσμα ἀπολυθῇ ὥστε μηκέτι τὴν τοῦ κληρονόμου οἶεσθαι προσδοκᾶν ἐπανάκαμψιν.

(13) ἡ δὲ τῶν μερικῶς συμπαθηθέντων στίχων συμπάθεια ἥτοι τῶν ἀποκεκινημένων γίνεται κατὰ μεγάλην ἀπορίαν τῶν τελεστών ἢ τῆς χωρᾶς δι' ἣν τὰ τελέσματα δίδονται καὶ κατὰ παράκλησιν τῶν αὐτῶν τελεστών καὶ βασιλικὴν φιλανθρώπιαν καὶ τοῦ ἐπόπτου ἀληθῆ ἔρευναν καὶ δικαίαν ἀνακούφισιν. ἵνα γὰρ καὶ οὗτοι μὴ παντέλως ἀπορήσαντες διὰ τὴν εἰρημένην ἀπρίαν μεταναστεύσωσι, συμπαθοῦνται παρὰ τοῦ ἐπόπτου καθ' ὅσον ἐνδέχεται. διαφέρουσι μὲν οὖν κατὰ τοῦτο τὰ ὀλόπτωτα καὶ τὰ ἀποκεκινημένα, διαφέρουσι δὲ καὶ ἐν τῷ ἀφορᾶν τὸ μὲν βάρος τῶν ὀλοπ-

τώτων στίχων πρὸς τὴν ὁμάδα τοῦ χωρίου καὶ τὸ βάρος τῶν ὀλοπτάτων χωρίων καὶ ἀγριδίων καὶ προαστείων καὶ τόπων πρὸς τοὺς γειτονούντας, τὸ δὲ τῶν ἀποκεκινημένων στίχων πρὸς αὐτοὺς τοὺς τῶν στίχων τελεστάς.

(14) οἱ κουφισμοὶ λέγονταί τε καὶ γίνονται ὅταν μεταναστεύσωσιν οἱ κληρόνομοι, οὐ μὴν ἄδηλόν ἐστιν ὅτι σώζονται πλησίον τοῦ ὄντες καὶ ὅπου προσκάθηνται· διὸ καὶ τῆς μεταναστεύσεως αὐτῶν οὕτως ἐχούσης καὶ προσδοκίας φανερᾶς τυγχανούσης ὥς ἐκ παντὸς δι' ὀλίγου ὑποστρέφειν ὀφείλουσιν, ὁ ἐπόπτης, ἵνα μὴ ἐξαλιφῶσι καὶ οἱ καταλειφθέντες τοῦ χωρίου ἔποικοι ἀλληλέγγυα ἀπαιτούμενοι, οὐ συμπαθεῖ τοὺς στίχους οὐδὲ κλασματίζει ἀλλὰ ποιεῖ κουφισμόν ἐπὶ καιρὸν τινὰ εἰς τοὺς στίχους οὓς ἐτέλουν οἱ μεταναστεύσαντες· τουτέστιν ἄχρις ἂν πρὸς τὰς οἰκείους στάσεις ὑποστρέψωσι. τηνικαῦτα γὰρ τοῦτων ὑποστρεφόντων ἐπορθοῦνται οἱ στίχοι ἢ παρ' αὐτοῦ τοῦ ἐπόπτου τοῦ κουφίσαντος ἢ παρ' ἑτέρου τινὸς τοῦ μετὰ χρόνους τινὰς τοῦ ὀρθοποιούντος· παρ' οὗ καὶ προσγραφὴ γίνεται ἐν τοῖς πρακτικοῖς διὰ τῶν ἐπανελθόντων στίχων ἀπὸ τοῦ κουφισμοῦ. οὔτε γοῦν τὰ κουφισθέντα πωλοῦνται ἢ δωροῦνται ἢ σεκρέτῳ τινὶ ἀφοσιοῦνται οὔτε αἱ συμπάθειαι, εἰ μὴ ἐπὶ ταῖς συμπαθείαις, ὥς πολλάκις εἰρήκαμεν, ἢ τριακονταετία παρέλθῃ· μετὰ γὰρ τὴν τριακονταετίαν ἀπολύεται ἢ συμπάθεια εἰς κλάσμα καὶ ἕκτοτε δίδεται τῷ δημοσίῳ ἄδεια ποιεῖν ἐπὶ τοῦ κλάσματος ὃ βούλεται. καὶ γὰρ εἰ λέγεται δωρεῖσθαι τὸν βασιλέα γῆν τόσῃν πρὸς τόνδε ἢ τόνδε ἀπὸ παντὸς τοῦ [f. 279 v.] εὕρισκομένου κλάσματος ἢ τῆς συμπαθείας, ἀλλὰ τοῦτο ἐπὶ τῶν μετὰ τὴν τριακονταετίαν νοεῖται.

ἡ μέντοι γε λεγομένη ὀρθωσις ἐπὶ ταῖς συμπαθείαις οὕτως ἐγίνετο. τῶν κληρονόμων ὑποστρεψάντων ἐντὸς τῆς τριακονταετίας καὶ ἐν τῇ διακατοχῇ τῶν ιδίων γενομένων στάσεων καὶ προστάξεως γενομένης τὰς συμπαθείας ἐπορθωθῇ αὐτοῖς, οὐκ εὐθὺς τὰ ὅλα ψηφία ἐπωρθοῦντο τοῖς κληρονόμοις τοῖς ὑποστρέψασιν καὶ νεμομένοις τὰ συμπεπαθημένα τόπια. ἀλλ' ὁ μὲν πρῶτος ἐπόπτης ἐπόρθου τοῦ ἐκτὸν μέρος τοῦ ψηφίου διὰ σύστασιν τοῦ πέννητος, ὁ δεύτερος τὸ ἥμισυ, καὶ ὁ τρίτος τὸ τρίτον μέρος· καὶ οὕτως διὰ τριῶν ἐποπτῶν τό πᾶν ἐπληροῦτο. φέρε γὰρ εἶναι τὸ ψηφίον τῆς συμπαθείας ἢ τοῦ κλάσματος νόμισμα ᾱ. ἐπωρθοῦτο οὖν παρὰ μὲν τοῦ πρώτου ἐπόπτου νόμισμα ς', παρὰ τοῦ δευτέρου νόμισμα ι', καὶ παρὰ τοῦ τρίτου νόμισμα γ', ὁμοῦ νόμισμα ᾱ. δεῖ δὲ εἰδέναι ὅτι τῆς τριακονταετίας παρελθούσης καὶ τῆς συμπαθείας ἀπολυθείσης εἰς κλάσμα διὰ προσγραφῆς ἑτέρου ἐπόπτου, ὀρθωσις ἐπὶ τοῦ κλάσματος οὐκ ἐγίνετο, εἰ μὴ πολλάκις ἢ προσγραφὴ τοῦ κλάσματος οὐκ ἔφθασε μετὰ τὴν τριακονταετίαν γενέσθαι, ἢ ἐὰν μὴ πρόσταξις ἐξηνέχθη ῥητῶς τὴν ὀρθωσιν διορίζουσα γενέσθαι ἐπὶ τοῦ κλάσματος. προστάξεως γὰρ γενομένης ἐπορθωθῇ καὶ τὰ κλάσματα πρὸς τοὺς εὕρισκομένους νομεῖς ἢ τινὰς ἄλλους, ἐκ παντὸς τρόπου καὶ τοῦτο ἐγίνετο.

(15) ἔτι καὶ τοῦτο εἰδέναι δεῖ. ἐὰν τὸ κλάσμα διεπράθῃ ἢ ἐδωρήθῃ, τὸ μὲν παλαιὸν ψηφίον ἀπώλετο, καὶ παρὰ τοῦ ἀγοραστοῦ ἢ τοῦ τὴν δωρεὰν λαβόντος ἐπὶ τῇ συμπαθείᾳ τελειοῦσθαι οὐκ ἐτίθετο, προσεγράφετο δὲ ὑπὲρ ἐνὸς ἐκάστου νομίσματος τοῦ παλαιοῦ δημοσίου· λιβελλικὸν δημόσιον ι' ις".¹

(16) τὸ ἀνεκφώνητον κλάσμα ὀπηνίκα τοῦ ἀπόματος (?) τὸ ψηφίον

¹ ἰ. ε. νομίσματος δωδέκατον μέρος.

κεῖται· τοῦ δὲ παραλειφθέντος κλάσματος, οὐδαμῶς· οἶον ὡς ἐν τύπῳ εἰπεῖν ἀπὸ u' ; u' .²

(17) ἐνθὰ μὲν ἐπίσκεψις βασιλικὴ παλαιὰν ἀνακοίνωσιν ἐν τοῖς χωρίοις κέκτηται, τὸ τοιοῦτον ὅλον ψηφίον τοῦ ἀπόματος ὑπὲρ τῶν βασιλικῶν εἶναι αὐτουργὸν ἐρμηνεύεται· ὅταν δὲ οὐδ' ὅλως βασιλικὴ ἐπίσκεψις μετουσίαν τινα κέκτηται, εἰς κλάσμα τοῦτο καὶ συμπάθειαν ἀπολύεται.

(18) τὰ ἀνέκδοτα ὀνομαζόμενα περὶ τῆς συγγραφῆς τοῦ κώδικος ταῦτα εἰσὶ· τὰ ἐν τῇ καταγραφῇ τῶν διαρίων ὅπωςδήποτε παραλειφθέντα ἀγρίδια, εἴτε διαγνωσθέντα καὶ προτεθέντα τῇ προτέρᾳ καὶ πεπλανημένη ῥίξῃ. ἔστω γὰρ εἶναι ταῦτα νομίσματα λ καὶ τὰ μετὰ τοῦτο διαγνωσθέντα νομίσματα $\bar{\epsilon}$.

(19) ἡ πτώσις καὶ ἡ διάπτωσις κατὰ διαφόρους αἰτίας ἐκλήθησαν. ὠνομάσθη γὰρ πτώσις ὁ παντελὴς καὶ ἀδιόρθωτος τῆς γῆς ἀφανισμός, εἴτε ἀπὸ σπασματος ἀπὸ χάσματος τε καὶ καταδύσεως, εἴτε ἀπὸ κατακλυσμοῦ, εἴτε ἀπὸ στυφώδους ἐκπυρνήσεως, εἴτε ἀπὸ ἄλλης τινὸς μεγάλης αἰτίας· διάπτωσις δὲ ἐκλήθη ὁ διορθούμενος ἀφανισμός. ἐπὶ καιρὸν γὰρ ποτε τινὰ τοῦ ἀφανισμοῦ ἐπικρατήσαντος, πάλιν εἰς τὴν προτέραν ὄψιν ἡ γῆ ἀποκαθίσταται. ἴσως γὰρ ἀπὸ σεισμοῦ τινὸς διερράγη πέτρα ἡ βουνὸς καὶ εἰς τὴν δίοδον τοῦ ποτάμου ἐμπεσὼν ἐκάλυψεν αὐτήν. ὁ δὲ ἐπικλύζων ἐγένετο πᾶσαν τὴν γῆν ἐκείνην ἕως ἂν ἑτέραν ἐποίησε προσχώρησιν καὶ διέξοδον· ἡ ἀλυκώδης ποιότης ἐκ τῆς γῆς ἀναβράσασα [f. 280 v] τὸ πρόσωπον αὐτοῦ ἐξηφάνισε καὶ ἀπρόσφορον πάντῃ ἀπειργάσατο· τὸ δὲ ἔμεινεν οὕτως ἔχον ἕως κατ' ὀλίγον καὶ ὀλίγον ἡ μὲν ἀνάδοσις τοῦ ἀλυκώδους ἐξέλειψε, καὶ τοῖς ὀμυριμαίοις ὕδασιν ἡ γῆ πιανθεῖσα καὶ ἀποπλυθεῖσα αὖθις εἰς τὸ πρότερον εἶδος ἀποκατέστη. ταῦτα εἰσὶν αἱ λεγόμεναι πτώσεις καὶ διαπτώσεις· ἡγουν πτώσις μὲν ὁ ἀδιόρθωτος ἀφανισμός· διάπτωσις δὲ ὁ διορθούμενος. γίνονται δὲ ἐπὶ τούτοις συμπάθειαι, ἀλλὰ τῇ μὲν πτώσει οὐκ ἐπακολουθεῖ ποτε ἐπὶ ὀρθωσις ἐπεὶ οὐδὲ διορθοῦται, τῇ δὲ διαπτώσει προσγίνεται καθ' ὃν ἴδῃ καιρὸν ὁ ἐπόπτης τὸ πρότερον τὴν γῆν ἀπολαβοῦσαν κάλλος.

(20) ἡ μετάθεσις δισσωῶς λέγεται· μετάθεσις γὰρ λέγεται καὶ ὅταν δημόσιος κανὼν ἀπὸ χωρίου εἰς ἕτερον μετατεθῇ χωρίον, καὶ ὅταν ἀπὸ τοῦ προκατόχου εἰς τοὺς ἐφεξῆς εὕρισκομένους κληρονόμους καὶ διαδόχους ἡ τοῦ διαρίου ἐρμηνευθῇ διακατοχή. ἔστω γὰρ ὅτι τοῦ διαρίου κατὰ τὴν πρώτην τοῦ κήνσου ἀναγραφὴν περιέχοντος τὴν ὀνομασίαν τοῦ δείνα ἢ τοῦ δείνα, ἦλθεν ὁ μετὰ χρόνους τινὰς ἐπόπτης καὶ εὔρηκεν αὐτ' ἐκείνου τὸν κληρόνομον αὐτοῦ καὶ προσεγράψατο τοῦτον, καὶ πάλιν ἕτερος ἐπόπτης μετὰ χρόνους τινὰς καὶ εὔρηκεν αὖθις ἕτερον καὶ προσεγράψατο καὶ ἐκείνου ὁμοίως ἐκείνῳ. καὶ οὕτως ἡ διακατοχή μετετέθη ἀπὸ τῶν προκατόχων εἰς τοὺς ἐξῆς.

(21) τοῦτο δὲ τὸ εὕρισκόμενον ἐν μέσῳ τῶν διαρίων “καὶ ὑπὲρ τόπου ἀποσπασθέντος” ἢ “τόπος ἀποσπασθείς” κατὰ τοιαύτην αἰτίαν ἐγράφη. ἴσως γὰρ τινος ἐξωνουμένου ἢ κατὰ δωρεὰν λαμβάνοντος τὸ εὕρισκόμενον κλάσμα καὶ τὴν συμπάθειαν, ὁ τὴν παράδοσιν ποιῶν ἐπόπτης οὐχ ὅσον ἔδει ἀλλὰ πλέον τοῦ δέοντος ἐστὶν ὅτε παραδέδωκεν. εἴτα ἔλθων ἕτερος καὶ τοῦτο

² ἰ. ε. ἀπὸ νομισμάτων δέκα νόμισμα.

διαγνούς ἐξ ἐγκλήσεως ἢ προσαγγελίας τινός, οὐκ ἀπήτησε διὰ τιμήματος τὸ ὑπέρπλεον ἀλλὰ ἀπέσπασε τὸ περιττὸν καὶ πρὸς τὸ δικαιούμενον μέρος ἀντιπαραδέδωκεν κἀντεῦθεν τὸ περιττὸν γράφεται “καὶ ὑπὲρ τόπου ἀποσπασθέντος” ἢ “τόπος ἀποσπασθείς.”

ἀλλὰ καὶ ταῦτα τὰ γραφόμενα ἐν μέσῳ τῶν διαρίων τῆς αὐτῆς ὑποταγῆς τοῦ χωρίου τοῦ αὐτοῦ στάσις τῆς αὐτῆς ἢ προάστειον ἢ ἀγρός ἢ χωράφιον τοῦ αὐτοῦ ἢ τῆς αὐτῆς ἢ ὑπὲρ χωρίου κειμένου ὁμοίως τοῦτο σημαίνει τῆς αὐτῆς ὑποταγῆς καὶ τοῦ αὐτοῦ ὑποτεταγμένου ὅθεν ἐξήρτηνται δηλαδή, καὶ ὅπου συμπεριιάγονται τε καὶ συνομαδεύονται ἢ μνημονευθεῖσα στάσις, τὸ προάστειον, ὁ ἀγρός, καὶ τὰ χωράφια.

(22) ἔτι πρὸς τούτοις καὶ τὸ γραφόμενον ὁμᾶς διὰ τῶν κληρονόμων τοῦτο δηλοῖ· τὸ διανεμηθῆναι τὸν στίχον παρὰ τοῦ ἐπόπτου ἢ παρὰ τοῦ προκατόχου τοῦ στίχου πρὸς διαφόρους τῶν ἐξ αὐτοῦ κληρονόμων· καὶ νέμεσθαι παρ’ αὐτῶν τὴν ἐπιβάλλουσαν τῷ ψηφίῳ τοῦ ὅλου στίχου κατὰ τὸν γενομένον τοῦ ψηφίου διαμερισμὸν πρὸς τοὺς δηλωθέντας κληρονόμους.

(23) καὶ μὴν καὶ τὸ γραφόμενον “διὰ τῶν ὑποτεταγμένων νομίσματα τόσα ἢ τόσα” τοῦτο δηλοῖ· ὅτι τὸ παρὸν ψηφίον κατὰ διανομὴν ἔχουσιν οἱ κάτωθεν τοῦ παρόντος στίχου ἀναγραφόμενοι τελεσταί· καὶ ὅταν ἀναπληροῦσι τὸ παρὸν ὅλον ψηφίον διὰ τῶν ἐν ἐκάστῳ τούτων ἀναγραφομένων ψηφίων.

(24) ὁμοίως τούτοις καὶ τὸ γραφόμενον “ὑπὲρ μέρους ἡμίσεος ἢ ὑπὲρ μέρους τρίτου ἢ τετάρτου” τοῦτο δηλοῖ· τὴν γενομένην ἐν τῇ ὑποστάσει τοῦ προκατόχου διανομὴν εἰς τοὺς μετ’ αὐτὸν ἢ ἐξ αὐτοῦ κληρονόμους, [f. 280 v.] εἴτε κατὰ τὴν ἐκεῖνου βούλησιν καὶ κληροδοσίαν τῆς διανομῆς γενομένης εἴτε κατὰ τὴν ἐκάστου τῶν εἰς ἑαυτὸν ταύτην διανεμιμάτων δύναμιν. ἔστω γὰρ ὅτι ὁ μὲν ἐξ αὐτῶν τὸ ἥμισυ τῆς ὑποστάσεως ἔλαβεν, ὁ δὲ τὸ τρίτον, ὁ δὲ τὸ τέταρτον ἢ ἄλλοτι μέρος πλείον ἢ ἔλασσον, καὶ καθὼς ἕκαστος ἔλαβε προσεγράφη τῷ κώδικι· ἐὰν δὲ τὸ γεγραμμένον περιέχει καὶ “ὑπὲρ μέρους ἡμίσεος ἢ τρίτου ἢ τετάρτου στάσις κειμένη εἰς ἕτερον χωρίον,” τοῦτο δηλοῖ· ὥς ὁ ἀναγεγραμμένος ἐν τῷδε τῷ χωρίῳ ὑπόστασιν ἔχων ἐν ἑτέρῳ χωρίῳ καὶ βουλόμενος μὴ καθέλκεσθαι ὧδε κἀκεῖσε, ἠξίωσε τὸν ἐπόπτην, τὸν δημόσιον κανόνα ὅστις ἐπέβαλεν αὐτῷ ὑπὲρ τῆς ἡμισείας στάσεως ἣς κατεῖχεν ἐν τῷ ἑτέρῳ χωρίῳ, ἵνα ἀπεκείσε μὲν αὐτὸν ἀποσπάσῃ, ἐνταῦθα δὲ μεταθήσῃ, καὶ οὕτως διὰ μιᾶς καθέλκεται ἀπαιτήσεως. διὸ εἰ μὲν εὐδιάγνωστον ἐστὶ τὸ ἀνήκον ψηφίον τῇ ἡμισείᾳ ἐκείνῃ μερίδι ἢ τῇ τρίτῃ ἢ τῇ τετάρτῃ, ὀφείλει ὁ τὴν ἰκάνωσιν καὶ ἐπιβολὴν τῶν χωρίων ἀμφοτέρων ποιῆσαι βουλόμενος, εἴγε φροντίζει τῆς ἀληθείας, ἀποσπάσαι τοῦτο ἀπὸ τῆς ῥίξης τοῦ παρόντος χωρίου καὶ τῇ ῥίξῃ τοῦ ἄλλου χωρίου ἐνώσαι· εἰ δὲ μὴ ἐστὶν εὐδιάγνωστον τὸ ψηφίον, ἀνάχυσιν τῆς γῆς τῶν ἀμφοτέρων χωρίων ποιῆσαι.

(25) τὸ ἀρίθμιον παρὰ τοῦ διοικητοῦ μὲν ἀπαιτεῖται, οὐκ ἐστὶ δὲ τὸ ὅλον δημόσιος κανὼν· οὐδὲ γίνεται τῷ ἀριθμῷ ἰκάνωσις γῆς κατὰ τὴν ὅλην αὐτοῦ ποσότητα, ἀλλὰ καθ’ ὅσον οἱ παλαιοὶ στίχοι καὶ τὰ διάρια περιέχουσιν· τὸ γὰρ δὴ ἀρίθμιον κατὰ τὸνδε τὸν τρόπον συνέστη καὶ ὠνομάσθη.

(26) ἐτυπώθη ἀπὸ παλαιῶν χρόνων ἢ τοῦ δικεράτου καὶ ἐξαφόλλου ἀπαιτήσις ἐν τῇ διοικήσει, ὑπὲρ κοινωφελούς ὥς λέγεται τινὸς αἰτίας καὶ τῶν

τῆς πόλεως τείχων περιποιήσεως. ἀπήτουν δὲ καὶ οἱ διοικηταὶ τὴν λεγομένην συνήθειαν αὐτῶν, ἀλλὰ καὶ οἱ ταξεῖται τὸ ἐλατικόν, ἅτινα ἐπειδὴ ὑστέροις καιροῖς ἐκ προσαγγελίας τινὸς ἐσωματώθησαν καὶ τῷ μὲν δημοσίῳ προσθήκη ἀπὸ τούτου γέγονεν, οὐκ ἀπελύοντο δὲ ταῦτα καὶ εἰς δημόσιον κανόνα, ἀπήρχετο ὁ διοικητὴς εἰς τὸ χωρίον καὶ ἄλλους μὲν ἀπῆτει ἰδίως τὸν δημόσιον κανόνα καὶ ἰδίως τὸ δικέρατον ἐξάφολλον τὴν συνήθειαν καὶ τὸ ἐλατικόν, ἐν ἄλλοις δὲ ὁμάδευε πάντα ὁμοῦ καὶ ἀπηρίθμει καὶ ἀνελάμβανεν ὁμαδικῶς νόμισμα, ἴσως δὲ καὶ τινὰς ὑπεραπαυτήσεις ἄλλας καὶ προσεγράφατο ἐν τῷ ἰδίῳ καδαστῷ (?)· ὁ δὲ δὴνα ἐτέλεσε διὰ πάντων αὐτοῦ τῶν διαρίων ἀρίθμιον καὶ τόσα τούτεστι τὸν δημόσιον αὐτοῦ κανόνα σὺν τοῖς εἰρημένοις αὐτοῦ παρακολουθήμασι καὶ ταῖς συνηθείαις. εἴτα τῶν καδαστῶν (?) ἀπὸ τούδε τοῦ διοικητοῦ εἰς τὸν μετ' αὐτὸν καὶ ἀπ' ἐκείνου πρὸς ἕτερον μεταβιβαζομένων καὶ τελευτῶν εἰς πρακτικῶν τάξιν ἀποκαταστάντων, ἢ τοῦ ἀριθμίου αὐτοῦ προσγραφή ἐπλάνησε πολλοὺς εἰς τὸ ἐξ ὁλοκληρίας λογίζεσθαι ταῦτα δημοσίου κανόνος ἔχουσι δίκαιον· εὐρήκαμεν δὲ καὶ ἐν πολλοῖς τῶν παρεκβόλων προσγραφᾶς ἐν ταῖς ὁμάσι τοιαύτας· ὁμοῦ ἢ ὅλη ρίζα ἢ ὁ ὅλος τούτων δημόσιος κανὼν νομίσματα τόσα· δικέρατον νομίσματα τόσα· ἐξάφολλον νομίσματα τόσα· συνήθεια καὶ ἐλατικὸν νόμισμα τόδε, καὶ ὅμου δικέρατον καὶ ἐξάφολλον, ἀριθμῖον νομίσματα τόσα, σὺν τῇ συνηθείᾳ καὶ τῷ ἐλατικῷ. διὸ οὐκ ὀφείλει τὸ ἀρίθμιον ἐξ ὁλοκλήρου ὡς δημόσιος κανὼν λογίζεσθαι καὶ ἰκάνωσιν γῆς λαμβάνειν ἀλλὰ κατὰ τὴν ποσότητα τῶν παλαιῶν αὐτοῦ διαρίων.

(27) καὶ τὰ ἀπαιτούμενα πάκτα ἐν τῇ διοικήσει δημόσιος ὑπάρχει κανὼν καὶ ἰκάνωσιν ἔχουσι καὶ ταῦτα γῆς καὶ τῇ ὅλῃ ρίζῃ τοῦ χωρίου συνεισάγονται τε καὶ ὁμαδεύονται πλὴν ἄλλ' οὐχ οὕτως καθὼς ἀπαιτοῦνται, ὀφείλουσι ταῖς ὁμασί συνεισάγεσθαι καὶ τὴν οἰκίαν λαμβάνειν ἰκάνωσιν· ἀπαιτοῦνται γὰρ [f. 281 r.] γὰρ (sic) τὰ πάκτα ἀνὰ νόμισμα α· τούτων δὲ τῶν νομισμάτων τὰ μὲν ἡμισυ ὑπάρχει δημόσιος κανὼν, τὰ δὲ ἕτερα ἡμισυ συνήθεια, καὶ ἡ λοιπὴ παρακολουθήσις· ἴσως δὲ καὶ ὑπεραπαυτήσις σωματωθείσα.

(28) μετὰ τὴν συμπλήρωσιν τοῦ ὅλου διαρίου ἢ τοῦ ἐτέλεσε ὁ δὴνα προσγραφῇ, εἰ μὲν ἐν τῷ χαρτίῳ τοῦ γενικοῦ ἀναγράφεται, μετάρθουσιν ὀνόματος δηλοῖ ἀπὸ τοῦ προκατόχου πρὸς τὸν κληρονόμον αὐτοῦ γενομένην παρὰ τοῦ τῆνικαῦτα ἀναγράψαντος· εἰ δὲ ἐν τοῖς τῶν διοικητῶν πρακτικοῖς, ἀμφιβάλλεται ὁ τελεστής εἰ κληρονόμος ἐστὶ καὶ οὐ δικαιούται ἀπεντεῦθεν ἀπὸ μόνης τῆς τοῦ ἐτέλεσε προσγραφῆς.

(29) ἐν τοῖς λιβελλικοῖς δημοσίοις τοῦ νομίσματος τὸ δωδέκατον μέρος νομίσματος ὁλοκλήρου ὀφείλει λαμβάνειν ἰκάνωσιν· τὸ ἐκτὸν μέρος νομισμάτων β, τὸ τέταρτον μέρος νομισμάτων γ, καὶ οὕτως κατ' ἀναλογίαν ἕκαστον, διότι, καθὼς ἄνωτέρω εἰρήκαμεν, ὁ κλασματισθεὶς καὶ δωρηθεὶς τόπος εἴτε διαπραθεὶς οὐ παντελῶς μένει ἀτέλεστος, ἀλλ' ὁ τὴν δωρεὰν διενεργῶν ἢ τὴν διάπρασιν τίθῃσι τῷ λαμβάνοντι ταύτην ἀντὶ δημοσίου κανόνος νομίσματος ἐνὸς τοῦ καὶ συμπαθηθέντος καὶ κλασματισθέντος νομίσματος δωδέκατον μέρος· ὥστε τὸ δωδέκατον μέρος τοῦ λιβέλλου ἰκάνωσιν ἔχει νόμισμα α.

THE DATE OF HESIOD.¹

(A Lecture given in November, 1914.)

Ogni strada, we are told, *ogni strada men' a Roma*. The roads which lead to Homer, an older goal than the Shrine of the Apostles, are nearly as many. One of them, not the most followed, runs through the literature of the historical centuries. When I say historical, I must observe that I use a term and make a distinction unknown to antiquity. To the ancients Homer was as historical as Pindar, the people of whom he sang were as historical as Pindar's patrons, often their descendants. The *μυθῶδες* or untrue element which the Greeks noticed in their poetry did not touch the individuals or the events; it was detected in violations of ascertained natural laws, such as the divine interference in ordinary life and the three daily tides of Charybdis. It is the modern world which has set a gulf the other side of Archilochus or Terpander beyond which persons are not found and all we descry is Gods in the making, bloody rites, and commercial movements which have come down to us under a false anthropomorphic and individualistic guise. It is difficult to shake off these modern prepossessions, to realise that the Greek world before 700 was not lit by corpse-candles, a dim field of legal fictions, eponymous and heraldic ancestors, but as human and positive as Phidon with his weights and measures and Solon with his code—as human and positive as the buildings, jewels and vessels which that world has left us. We are reluctant to admit that our ignorance of Lycurgus differs only in degree from our knowledge of Pisistratus, increasing in proportion to lapse of time and such accidental circumstances as the absence of written records.

If it is difficult to realise that the centuries before 700 resembled the centuries after, we may at all events build upon the period which our contemporaries allow to have been peopled by human beings. There are two centuries—going back from Pindar, let us say, of whose flesh and blood existence no one doubts—of written record, in which we do not find Homer. Homer is spoken of, followed, completed, but he is not there himself. He was earlier, he is looked back to. If therefore we define the dates of this younger period we obtain an apparent *terminus ante quem* for Homer.

¹ The best account of Hesiod is the admirable article 'Hesiodos' in Pauly-Wissowa *Real-Encyclopædic*, vol. xv. (1912), by Alois Rzach,

which summarises the literature. Chronological data are collected by Felix Jacoby, *Das Marmor Parium*, 1904, 152 sqq.

The most obvious province of this kind is the literature known as the Epic Cycle, which contained the history of the Heroic Age, that is to say its two great undertakings—for it had no other history—the interstate double Theban wars, 'for the sheep of Oedipus' as Hesiod says, and the international siege of Troy, for Menelaus' wife. I must be allowed to assume the substantial accuracy of the ancient dating of the Cycle;² it depends on the same sources on which all Greek dates depend, local chronicles or *ῥοι, ἀναγραφαί* or lists of kings, priests, *πρωτάνεις*, and victors in games, and on the historical collections and studies of the Peripatetics and Alexandrines. It is an extension, the same in kind, of the system which gives us the aera of Terpander and Stesichorus, who are firmly fixed in history. And apart from the documentary evidence, the period to which this chronology assigns the post-Homeric movement in epos, one of great volume and activity, is the period when according to nature it must have taken place, the period, namely, before the rise and popularity of the iambic, melic and lyric forms of literature—amazing advances upon metrical annals which only differed from one another in being more or less romantic. The new forms rapidly covered the ground; Stesichorus and Alcaeus overwhelmed the Cycle and the Homeric hymns. Hence the inception and production of the Cycle took place in an earlier age, when the old hexameter vehicle was without a rival and still strong enough to tempt new talent. For these Cyclic poems such as they were, some better like the *Thebais*, others insignificant like the *Telegonia*, a wealth of candidates, mostly colonial, is supplied; and their date is pushed well towards the middle of the eighth century.

Consequently, as far back as 750 we find no place for Homer. The Homeric Hymns, though vaguer and all but traditionless, chime in; the oldest of them appears to be contemporary with the greater and older Cyclic poems.³ The same may be said of Eumelus and the Corinthian metrical historians, and of Antimachus of Teos.

I propose now to consider the evidence, in this direction, of Hesiod. Time has dealt hardly with the Boeotian singer, and has blown most of the tradition concerning him to the winds. His lives are Byzantine, and nearly all the statements about him in the old authors are in some way relative to Homer.⁴ He has one marked characteristic. While tradition—

² See *C. Q.* 1908, 64 ff., 81 ff.; 1913, 40 ff.

³ The Hymn to Apollo, work of Cynaethus who, first of rhapsodes, visited Syracuse after its foundation, that is in the eighth century, exhibits Delos and Delphi as parts of one religious system, and in so far agrees with the Hesiodic verses (fr. 265) which represent the Boeotian Hesiod and the Ionian Homer meeting at the Delian agon.

⁴ Beside the greater Alexandrians and Praxiphanes the Peripatetic, Hesiodic literature includes Amphion of Thespieae (*ἐν β' περὶ τοῦ ἐν*

Ἑλικῶνι μουσείου Ath. 629 A) *F.H.G.* iv. 301, Cleomenes *ἐν τῷ περὶ Ἡσίοδου* Clem. Alex. Strom. i. 61-3, Nicocles and Nicocrates (*ἐν τῷ περὶ τοῦ ἐν Ἑλικῶνι ἀγῶνος*) *F.H.G.* iv. 464, 465 (perhaps the same), two poets Chersias of Orchomenus and Hegesinous in his *Ἀτθίς*, both extinct in Pausanias' day and reported by the Corinthian Callippus *ἐν τῇ ἐς Ὀρχομενίου συγγραφῇ* (ix. 29 and 38). Callippus himself has no more mention *F.H.G.* iv. 352. The verses of Chersias remind one of Lyceas the poetical guide (*ὁ τῶν ἐπιχωρίων ἐξηγητής*) Paus. i. 13. 3 etc.

and general belief—represented Homer and his work—Hymns, Cycle, and even parody—as one and indivisible, and only growing intelligence and the dawn of critical method eventually separated the *Iliad* and *Odyssey* from the rest, the authorised view of Hesiod from the beginning⁵ was that the verses were not homogeneous.

When Pausanias came to Thespiæ on his Boeotian round, the representatives of the Corporation who owned the land and the *sagri luoghi*, the *συνθύται μουσῶν Ἡσιοδείων*, told him dogmatically that the *Works and Days* alone came from the Master's hand, and shewed him the imperishable *ne varietur* copy on lead, wanting the proemium which we read at the head of the poem. The great mass, then, of Hesiodic writings, the *Theogony*, *Catalogi*, *Ἡοῖαι*—of which no contemptible amount has been yielded of late by Egypt—and minor mantic lore, was the output of successors and disciples. This agrees with the Homeric circumstances, but the parallel is curiously in-and-out. The works of both schools bore the name of the Master; but whereas the post-Homeric poems were assigned in good time to their real authors, the anonymity of the Hesiodeans was unbroken. There are no claimants for the *Theogony*. At most we find Cercops of Miletus, Hesiod's rival according to Aristotle (*ἐν γὰρ περὶ ποιητικῆς*⁶), put up for the *Aegimius* (Athen. 502 c). The Thespian tradition is borne out by the words of the writer of the *Theogony* when he says 'I begin to sing the Muses of Helicon, who once taught Hesiodos his fair song as he shepherd his sheep under mighty Helicon.' These words can have no meaning but that the speaker and his predecessor were different. The near neighbourhood of the Nine Muses imposed this canonicity on the Hesiodic school; the influence of the Chian guild, if we believe the Homeric poems to have once been in their hands, was less authoritative.

The bulk therefore of the Hesiodic *corpus* is later than the *Works and Days*. Of the portion of this *corpus* which has survived the Aspis has no allusion to determine the date of the *Catalogi* (from which its first portion was taken). The *Theogony* however, in spite of the timelessness of its main subject, dates from a period which may be defined. It belongs to the class of poems which admit the actual world. As the Cycle anachronises with eagerness, and admits into the heroic age the Greek colonies, the Euxine and the Crimean chersonesus, the *Theogony*, without anachronism indeed, recognises the geography of its time. It mentions Aetna (860); Homer does not, unless the Cyclops be Aetna. Homer must have known Aetna, or at least that there was a snow-capped volcano in those parts, even if he did not know its name, for Mycenaean trade with Sicily had existed for centuries, and the argument that the portions of the *Odyssey* where Sicily is mentioned belong to the colonial period is one of the most extraordinary signs of the mental habit of the last generation of Homeric critics. The most unobservant trader must have noted Etna. One passage, the list

⁵ The author of the *Theogony* announces that he is not Hesiod.

⁶ And Diog. Laert. ii. 46.

of rivers 337 *sqq.*, is of much interest and value. I cannot discuss it in all its bearings, but I may say that while Father Nile here makes his entry on the geographical stage—a doubtful entry—and we also find for the first time the Po, the Strymon, the Danube, the Phasis and the Haliacmon, we look in vain for the Halys, the Rhone,⁷ and the Borysthenes. We are in the same world which lies on the horizon of the *Aethiopsis* and the *Cypria*, which allowed Artemis to shift Iphigenia to the Crimea, and Thetis to intern her son on an island at the mouth of the Danube. The Milesian settlements in the Euxine, or some of them, have taken place, but there is no west beyond Aetna, the Latins and the Tuscans. For the writer is the first to utter these famous names. The *Τυρσηνοὶ* are ruled by Circe's three sons, Latinus, Agrius and Telegonus. They live *μάλα τῆλε μυχῷ νήσων ἱερῶν*, that is, past Sicily and behind Capri, Ischia and Circeii.⁸ There are no Italians,⁹ no continent and no Tiber.¹⁰ On the whole the writer had the same outlook as Arctinus of Miletus, who wrote ol. 9, '400 years after Troy.' There is nothing in the poem to drag it into the next century—and the same may be said of the fragments,¹¹ most of which doubtless come from the *Κατάλογοι*.

We come next to the *Works and Days*, with the presumption that if its writer was the predecessor and model of the Theogony-poet—and doubtless dead, as he that left untold the story of Cambuscan was when Milton wrote—the model turns the century. His book gives very vague evidence on the point. Neither its witch-wisdom, which Professor Murray has treated with his usual charm, nor his Farmer's Almanac

γῆς ἐργασίας καρπῶν ὥρας ἀρότους

agreeably expounded by Professor Mair, involve history. I return, indeed, to the Almanac, but I say goodbye to the witch-interest. Hesiod's observations also on the necessity for work, and the painful consequences of passing hours in the warm *λέσχη* in the winter, are not in time. The parts of the poem which do however faintly suggest a period are these. I may first remark that in Homer's case we have an extensive field of archaeological evidence by which to control and date his narrative, and it is to be hoped that we may ere long have written evidence also. But in the case of Hesiod the evidence for the early history of Boeotia is—Hesiod. When Strabo (402) sketches the history of the country he has nothing to mention between the Aeolic migration and the Persian war. The moderns have only added the

⁷ This is natural, if Massilia was not founded till 600 B.C. Timaeus, fr. 38, first mentions the river.

⁸ Theophr. *H.P.* v. 8. 3. *καὶ πρότερον μὲν οὖν νῆσον εἶναι τὸ Κιρκῆιον, νῦν δὲ ὑπὸ ποταμῶν τινῶν προσκεχώσθαι.*

⁹ *Αἰῶνες* seems to appear first in Pindar, fr. 140 b 60, then in Scymnus 228.

¹⁰ Fick saw in *Ἄγριος* the man of the ager Latinus. But was there such a phrase in the

eighth century? and the place is surely covered by *Λατίνος*. I have thought that *ἄγριος* might = *campanus*, the native behind Cumae. The *Καμπανοί* occur in the Hesiodic parody of Euthydemus (Ath. 116 A) along with the Bruttians.

¹¹ They introduce to the world the Macedonian, the Arab, the Ligurian and the Scythian, the Hyperboreans, the Eridanus again with its amber, and Ortygia.

Boeotian league of the sixth century, from the evidence of coins.¹² Now Hesiod on his own showing is post-Dorian, a returned colonist from Cyme. I hold my hand therefore from the fascinating question of Boeotian origins, as much too early for Hesiod as the sixth century—which can only concern his latest disciples—is too late.

The first passage in the *Works and Days* which we need examine is the famous list of Ages of the World, 109 *sqq.*¹³ This is an evident blend of archaeological memory and a theory of human degeneration. Bronze followed by iron we know to be correct; but Hesiod's memory does not extend beyond bronze; he has no stone. On to this sequence were fitted members of the degeneration-series, gold and silver, and the whole was intended to exhibit the continuous decay of mankind. There is one exception in the downward course. Between bronze and iron Hesiod inserts the Heroes, who have no corresponding metal. The coincidence with apparent fact, that is to say, the civilisation of the heroic age as depicted in Homer, is wonderful, and Hesiod has been used to support the belief that there was a period when both bronze and iron were in use during which the Pelopidae and Aeacidae and other contemporary heroic houses ruled Greece and made war, some on Thebes and all on Troy. I am not averse from believing that Hesiod really meant that the age of Heroes intervened at this exact stage, though it is an inference from his words; but I must observe that if we so believe, there is hardly any limit to the accuracy of the Greek historical memory. The traditional past of the Greeks will have to be accepted in many less difficult cases,¹⁴ and literature, for instance Pindar's statements, will have to receive more respect. This conclusion I accept, as one who has never doubted the essential accuracy of the Greek recollection. Πιστὸν δ' ἀπίστοις οὐδέν, as Pindar says.

Here, however, I am only concerned with the fact that Hesiod knew of a time before iron existed, μέλας δ' οὐκ ἔσκε σίδηρος, when men's armour, their tools, and their houses were of bronze. This emphatic statement must surely date from a period not long after the actual introduction of iron. This distinction between the metals as resources of civilisation does not occur again in live literature. Iron must have been nearly as attractive as when the Sutors' fingers itched for it.¹⁵

Again, the description of the Heroes implies nearness to them. The distinction indeed between Heroes and men was always made. In Pindar human ancestors begin with the return of the Heraclidae. Before that the sons

¹² I refer to the article 'Βοιωτία' by F. Cauer in Pauly-Wissowa iii. 1899.

¹³ Imitated by Aratus Phaen. 108 *sq.* (gold, silver, bronze). I refer to Mr. Sikes' interesting remarks, *Anthropology of the Greeks*, 1914, p. 33 *sqq.*

¹⁴ *E.g.* that the Dorians came from Pindus, and Pelops from Asia.

¹⁵ The anecdote in Herodotus i. 68 which Mr. Sikes adduces *l.c.* p. 34, note 22, shews, it

seems to me, admiration for the process rather than for the metal. The forge is always attractive. The antiquarian Apollonius of Rhodes ἐν τῇ ᾧ τῶν ὑπομνημάτων thought iron was called χαλκός by the ancients (a view we have seen revived): but his commentator was better informed, and quotes Hesiod (schol. Ap. Rh. i. 430). Pausanias, another antiquary, notices Homer's language and confirms it by some evidence (iii. 3. 8).

of Aeacus, or whoever they may be, have a history on which Pindar dilates; but with the incoming of *ἄνδρες* the poet makes one step to the patron's maternal uncle. Hesiod draws this distinction, but in addition is acutely conscious of his own inferiority and that of his age, and of the virtue of the Heroes, a kind of set-back in the degeneration-series Silver-Bronze-Iron, and he trumpets their elevation from man to God. They all attain Elysian fields. Here Hesiod is of his age, the age that worshipped Zeus—Agamemnon, Diomedes and Ulysses. But I see the points flash in the thicket, or rather the periscope in the waves, and like Pindar *κόπαν σπάζω*. It is enough that Hesiod is aware of a once universal use of bronze, and of an essential difference between the men of his own time and their predecessors.

His recollection also is strong of the two exploits which composed the history of the Heroic Age, the two campaigns against Thebes and the one expedition against Troy. (The first Trojan war, when Heracles and Telamon battered down Laomedon's wall, he has forgotten.) Nothing has occurred in his own day to rival them, and the actual conditions are misery. The colony in Aeolis was no success, and justice in Boeotia is administered and property held by superiors who bear the title of *βασιλεῖς*. This does not mean 'monarch': the term appears to connote little more than 'gentilhomme.' We find this meaning currently in Homer, but not in ordinary literature. It is therefore another mark of age. The squire of Ascrea belonged to a different order. You might, and did, gild his palm, but he was your better. A political, perhaps racial, distinction is implied. Who were these *βασιλεῖς* whom the returned colonist found in Boeotia but the incoming Heraclids? We do not know the name of the baron of Ascrea,¹⁶ but Thebes was the property of the house of Aegeus. I am not aware that there were *πενέσται* in the Boeotian communities, but the wail 'fatigue and misery,' *καμάτου καὶ οἰζύος*, seems to rise from such a class, as the time-honoured lament that the children are not like their fathers may point to a mixture of race. Such conditions are not often long existent; the subject race reasserts itself. Or if they are permanent they are accepted as natural. These laments do not recur in the Hesiodic school. I think it may be fairly argued that Hesiod wrote not long after the catastrophe which turned Agamemnon and Ulysses into objects of worship and produced the economic misery of the Boeotian farmer.

The autobiographical passage (654-662) which is a natural consequence of the mention of the sea, and must not be doubted on the evidence of an aesthetic judgment like Plutarch's, asserts that the Master went across the Euripus to sing at the wake of Amphidamas at Chalcis. The same story, amplified, with Homer as the antagonist, is reported by Plutarch (conv. sept. sap. 153 F) from Lesches. Lesches by the rule of parsimony must, until the contrary is proved, be the Lesbian author of the *Ἰλιάς μικρά*, the contem-

¹⁶ Who is the hawk held out in the apologue 202 *sqq.*? Thebes?

porary of Arctinus.¹⁷ This poet tells us that Amphidamas had been a stout warrior in the Lelantine war with Eretria. So far Hesiod was a contemporary of the Lelantine war. Unfortunately we are no nearer a date, for this struggle cannot be defined by anything later than the Dorian migration.

However we see that the version of this story current in the latter half of the eighth century, that is to say in Lesches' day, is a heightened version of that in the *Works and Days*. The rival is named, and the theme is stated. We must therefore allow time—between the two accounts—for the story to grow, and pass the sea to Lesbos. We gain a second piece of chronological evidence similar to that of the *Theogony* with its mention of the Master by name. Both regard Hesiod at a distance, and in so far push the *Works and Days* considerably back.

We may turn round and say that the Lelantine war also is carried considerably back, and clearly into the ninth century; and who can say that this is unlikely?

I hesitate to invoke Hesiod's horror of the water, as this is a lasting convention, and was sincerely held in late antiquity¹⁸; or his mention, though the first, of 'black men,' *κυανέων ἀνδρῶν* (527).

Here we may consider the traditional dates ascribed to Hesiod. They are fewer than those given to Homer, which vary from the siege of Thebes to the time of Gyges, but they are sufficiently various. The Parian Chronicle, one of the treasures of the University of Oxford, puts him at 936 B.C. Pliny the Elder arrives at much the same date expressed in terms of the aera of himself. The *βίος* which has come down to us through Tzetzes puts Hesiod in the archontate of Archippus, the third Codrid. This would bring him nearer 1,000. There were, however, more moderate estimates. Apollodorus made him live between 846–777.¹⁹ Eusebius and some others put him in the eighth century. We are unaware of the grounds that the original calculators of these dates had for their conclusions. The late dates ascribed to Homer (e.g. the seventh century by Euphorion and Theopompus) may be confidently treated as critical conclusions, that is dates arrived at by observations of allusions in poems attributed to Homer (as he was held to be blind on the strength of the Hymn to Apollo), and probably this is the case with Hesiod also. The Parian date, which practically coincides with Herodotus', ii. 53, is explained by Jacoby, who has devoted much labour to these matters, as a reproduction of the views of Ephorus, who as a Cymaeon himself gave his countryman precedence by a generation over Homer,

¹⁷ *J.H.S.* 1912, p. 257 *sqq.*

¹⁸ Aratus Phaen. 110; it was a source of luxury, Greece having too much coast, Dicaearchus fr. 73. See the authorities in Stobaeus, ecl. iv. 17, *περὶ ναυτιλίας καὶ ναυαγίων*. The elder Cato regretted three things—of which the second was *πλείστας ὅπου δυνατόν ἦν περὶεῖσαι*, Plut. Cat. maj. 9. Strabo on the other hand,

an Asiatic and a traveller, gives the plain facts: *ἀμφίβιοι γὰρ τρόπον τινὰ ἔσμεν, καὶ οὐ μᾶλλον χερσαῖοι ἢ θαλάττιοι*. (c. 9).

¹⁹ Apoll. fr. 6, ap. Jacoby, 'Apollodorus' Chronik' (*Phil. Untersuch.* xvi. 1902, 118–120). The dates are an inference from Solinus, xl. 16. 17, part of whose statement is *in auspiciis olympiadis primae obiit*.

as he indicated by the pedigree in his ἐπιχώριος (Plut. vit. Hom. I., c. 2):^{19a}



The coincidence makes this view likely enough, but we do not know what induced Ephorus to choose the period 940–900 for his two heroes. The evidence derivable from the *Theogony* and the anecdote in Lesches justify us in rejecting an eighth century date for Hesiod's birth, but as between the ninth and tenth we are helpless.

This is not all the evidence. Hesiod has given us his apparent astronomical date. *O.D.* 564 he fixes the time in spring for cutting over vines by the rising of Arcturus, which appears above the streams of Ocean, that is the horizon, in the evening sixty days after the winter solstice. Arcturus' rising now-a-days occurs fifty-seven days after the χειμέρινα τροπαί, and therefore we have the apparent date for an astronomical determination. I am not the first by any means to have recourse to this evidence,²⁰ and my obligation is all the greater to the Radcliffe Observer, who has been at the pains to make a new and elaborate calculation. I am only sorry to have appealed to Dr. Rambaut's skill and labour in a matter where a positive historical conclusion seems to be so uncertain.

For, before we go any farther, is the figure ἐξήκοντα to be taken literally, or is it a round number? This amounts to asking whether a hexameter-writer is likely to express units as well as decads. The contingents of ships in the Catalogue afford some evidence. There are twenty-nine entries; in twenty-three the figures are decads,—100, 90, 80, etc. But the remaining six give us totals of 22, 12, 11, 9, 7 and 3. The Suitors again are reckoned down to the last man:

ἐκ μὲν Δουλιχίου δύο καὶ πεντήκοντα
 κούροι κεκριμένοι, ἔξ δὲ δρηστήρες ἔπονται·
 ἐκ δὲ Σάμης πίσυρες καὶ εἴκοσι φῶτες ἔασιν·
 ἐκ δὲ Ζακύνθου ἔασιν εἴκοσι κούροι Ἀχαιῶν,
 ἐκ δ' αὐτῆς Ἰθάκης δυοκαίδεκα πάντες ἄριστοι,—

and no one will have forgotten the arithmetical machine employed to prove that the Greeks were more than ten times as strong as the Trojans (B. 122 sqq.). It appears then that a hexameter-writer of this period,

^{19a} For this and other pedigrees see *J.H.S.* 1913, 20, or Gruppe in Roscher s.v. Orpheus. In an interesting paper in the *Revue Historique* 1914, vol. cxvii. M. Pierre Waltz makes out the Hesiodic civilisation later than the Homeric, mainly from economic considerations and the greater distinction of trades and

professions.

²⁰ See De Morgan in *Hesiod, the Poems and Fragments*, done into English prose, with introduction and appendices by A. W. Mair, 1908, p. 135; J. B. Pearson, *Proceedings of the Cambridge Philosophical Society*, vol. iii. part iii. (1877).

while perhaps inclining to decads, could when he chose express any two figures without difficulty; and therefore, given Hesiod's practical aim, and that an almanac is hardly literature, we may take 'sixty' literally, and not as a convenience for 61 or 59; though the other possibility must be kept in mind, and with a round figure of course the evidence disappears.

If 'sixty' is taken literally, Dr. Rambaut's calculation disposes of Ephorus' date at once; for he will only admit the sixty days to be possible of B.C. 850, and that with reluctance. I of course accept this conclusion and throw Ephorus overboard. If we next try to utilise the astronomical evidence for a positive date, we must again consider the possibility that Hesiod took his figures from a predecessor, and that they were true of another time and place, not of Boeotia in the ninth century. This objection, which one would apply without scruple to a tragedian or to Virgil, seems less cogent the further we go back. We do not admit without some show of evidence that Hesiod had a predecessor of a different latitude, or a predecessor at all. Statements about the time of year to do something to plants must have a beginning; they cannot be handed on like miracles and descriptions of places from one Saint's life to another; they are not true of distant climes: vines in particular are not widely distributed, the ploughman from the sun his season takes, and the practical tone of Hesiod's calendar, designed to regulate the all-essential duty of periodic labour, inclines one to believe that Hesiod's almanac was correct of his own period. Taking therefore Dr. Rambaut's anterior limit, B.C. 850, as available evidence, I find that this determination agrees with Apollodorus' date of 846-777; Hesiod's *floruit*, when he may be supposed to have written (as his tone is that of an elder to a junior) will be about 800. This date I believe is acceptable to Dr. Rambaut's conscience. Hesiod's birth about 850 does not contradict Herodotus' jealous '400 years and no more before me'; and leaves about the right time to enable the author of the *Theogony* and Lesches to look back to Hesiod as a Master with a growing tradition.

If, on the other hand, it were thought better to consider 'sixty' a round number, which Dr. Rambaut is rather inclined to do, and neglect Arcturus altogether, I should still on the remaining evidence propose this date, as the latest which agrees with the other conditions.

Having dated Hesiod we have next to ask the origin of his school, the Boeotian epos; and its relation, temporal and causal, to the Homeric or Ionian.

Hesiod may be thought to have settled these questions himself, if he returned to Greece from Cyme, the very centre of colonial epos, and began with the help of the Muses to give out good counsel and sound knowledge. He might appear to have brought the old epic art with him and practised it in his new home. This may be the truth and the Boeotian school an escape from the Ionian. But the evidence must be stated. We have to observe that the Muses Hesiod invoked, and the Muses who through the centuries

lived on Helicon, are not the Muses of the *Iliad*. The Hesiodic Muses, to whom the Corporation did sacrifice through the centuries to Pausanias' days, were Heliconian. In Homer that mountain belongs to Poseidon. The Homeric Muses reside, so far as they have a residence, at Dorion in Nestor's kingdom, in the north of the historical Messenia. They are called 'Olympian' once, it is true, but in the same sense as the Gods generally are Olympian. It was to Dorion that Thamyris, a Thracian, whose last host was Eurytus, baron of Oechalia opposite Tricca, not far from the pass which led to Dodona—himself an innovator, who challenged Apollo with the bow θ 224—it was to Dorion that Thamyris came and defied the Muses to sing, with the results that we know.²¹ By Hesiod's time the Πίερες, southern Thracians—to Homer a mere landmark like Emathia, between Olympus and Athos²²—had sent their Muses, friends of Thamyris, south. Hesiod found these strange maids seated on Helicon, and to them he prays.

The event was not forgotten in tradition. Strabo (471) tells us that 'Helicon was consecrated to the Muses by Thracians who had settled in Boeotia,' and the same Thracians play a part in Strabo's account of the formation of the Boeotian state. Along with Pelasgi they drove the Boeotians north (evidently into the southern basin of the Peneus), where they lived long with the Ἀρναῖοι; eventually they returned to their own land, and 'were all called Βοιωτοί.' This account, taken no doubt from Ephorus (who intended it as a counterblast to Thucydides' story), represents the same people dispossessing the earlier inhabitants of Boeotia and planting their Muses on Helicon. The same story appears in a kind of 'evening edition' in Pausanias ix. 29. A poet, Hegesinus,²³ extinct in Pausanias' day, but quoted by one Callippus ἐν τῇ ἐς Ὀρχομενίουσιν συγγραφῇ, wrote a versified *Althis*, in which he related the foundation of Ascera, and how it was Ephialtes and Otus, sons of Aloeus, who first sacrificed to the Muses on Helicon, Muses three; it was the Macedonian Pieros who raised them to nine, if indeed they were not his own daughters. And Mimnermus, in the proem to his lines on the Smyrnaeans who fought against Gyges, i.e. in the reasonable times of the seventh century, distinguishes between dynasties of Muses.

So when Hesiod returned from Aeolis to Ascera he found a school of verse at Thespieae, and under its inspiration strung his thoughts together? This may be, but the further inference is not very clear.

The nature of the singing which came (with other things) from Thrace is quite unknown. It is often supposed to have been Orphic.²⁴ Orphic is

²¹ He continued to expiate his sins, e.g. in the Necyia of the Μυῦναι, fr. 3, 4, along with Amphion.

²² ρ 224 sqq. This is the only mention of the word in Homer. B 766; it is a false reading. By the sixth century the Pieres had been pushed as far east as Pangaeum (Herod. vii. 112, Thuc. ii. 99).

²³ Hegesinus, Kinkel, *E.G.F.* p. 208; Callippus, *F.H.G.* iv. 352; Mimnermus, fr. 13.

²⁴ I refer to the formidable article of Gruppe in Roscher, vol. iii. 1. Whether the statement quoted by Frazer (Pausanias v. p. 154), that there was a Bulgarian poet of the name of Orfen is confirmed I cannot say. The name would correspond to the bye-form Ὀρφήν.

a vague term: in the age of Pisistratus, and of his Minister of Religion and Cults, Onomacritus, Orphic and Pythagorean doctrine was embodied in a series of hexameter poems attributed by a pious fiction to Orpheus. But the date of the descent of this kind of creed from the north—if it came from the north—into Greece is unknown, and there is no reason to push it back to the Dorian invasion. Moreover it is improbable that mountaineers descending, whether in one flood or in various streams, from the Haliacmon possessed a form of verse the exact counterpart of the elaborate Homeric hexameter. Hesiod's subject too is separated *toto coelo* from anything approaching Orphism.

The Heliconian Muses are more likely to have brought the paean or the nomos with them. The paean has been lately derived from the Paeonians,²⁵ and in default of any even plausible etymology of the word as a common noun this is likely enough. Its mention in Homer may be called if necessary an anachronism. The nomos orthios, which Homer does not know, is given by one fragment of tradition to Thamyras;²⁶ and its epithet sounds more like the Spartan goddess *ΦΟΡΘΙΑ* than the undistinctive attribute 'shrill.' Some violent discord of this kind, paean or nomos, must have made the Triphylian Muses blind Thamyras. And when Hesiod was 'excluded from the Delphic agon because he could not sing and play the cithara at the same time,'²⁷ does this mean he was ignorant, as an Ionian, of the new music?—or does it mean the same as Nicocles' statement, schol. Pind. *Nem.* ii. init., that Hesiod was the first rhapsode to recite without the phorminx?

It seems probable then that we should conceive of the new Thracian music as melic or lyric,²⁸ and of Hesiod as coming from a rhapsode-centre in Asia and adapting that narrative-art to the sad circumstances of Boeotia. This is the usual view,²⁹ and it clearly entails the dependence of Boeotian epos upon the Ionian school, and therefore the priority of Homer, the master of that school, to the ninth century.

We see of course that the language is practically identical with that of Homer; the verse, though rough in places, is the same. The predominance of Ionian epos over the *Theogony* is shewn by the presence alongside of the Nile and the Ister of the absurd Trojan water-courses which had already received the canonisation of the Cremera and the Rubicon. Hesiod here copied his predecessor, as Polybius tells us every writer did till his own day, when *πάντων πλωτῶν καὶ πορευτῶν γενομένων* people could see things with their own eyes. Moreover we have the palpable imitation of Σ in the

²⁵ C.R. 1912, 249.

²⁶ Ὀρθιον νόμον Θαμύρα. ὁ καθαρωδικὸς τρόπος τῆς μελωδίας, ἁρμονίαν ἔχων ταυτὴν καὶ ῥυθμὸν ὀρισμένον. ἦσαν δὲ ζ', ὧν εἰς ὁ ὀρθιος: gloss on Herod. i. 24 (Stein. vol. ii. p. 449). Thamyras is omitted in the fragments of this notice which are scattered in Suidas.

²⁷ Paus. x. 7. 3 λέγεται ἀπελαθῆναι τοῦ ἀγω-

νίσματος ἅτε οὐ καθαρίζειν ἅμα τῇ φῶδι δειδωγμένον. Chersias or Hegesinus are probably responsible for the story.

²⁸ πρῶτος ἡρόσθη παιδὸς Ὑμεναίου (Suid. in Θάμυρις) seems a distant way of stating this. The words ὕμνος, ὕμνη, ὑμναῖος are clearly connected.

²⁹ Rzach, *l.c.*

Aspis. Points of contact indeed between the *Works and Days* and Homer are few. They have a proverb in common, to the effect that shame is out of place in a poor man, but probably neither published it for the first time.³⁰ We cannot expect to be able to compare a small Dutch-built craft of 800 lines with two swelling galleons of 15,000 and 12,000. Still, when Hesiod mentions Aulis it suggests to him the winter the Greeks lay there before they sailed for Troy; and the past heroic age possessed equally minds on either side of the sea. Hesiod marks the misery of the present, the Boeotian townships under their Dorian masters. Homer, who was perhaps better off in Ionia, shuts his eyes fast to his own world, and decks his nation's past, the age which had brought down Thebes and set Troy alight, in all the colours of passion and marvel.

T. W. ALLEN.

APPENDIX ON *WORKS AND DAYS*, 564 sqq.

Extract from a Letter by ARTHUR A. RAMBAUT, F.R.S., Radcliffe Observer.

THE problem is not without difficulties arising from the vagueness of the statements and the uncertainty of the data. I am afraid the lines of the poem will hardly suffice to fix the date of Hesiod with any precision; but they may possibly serve to place a limit below which it must lie, and I believe they show that the traditional date, 930 B.C., or thereabouts, is much too early.

I take it that the fourth line in the passage must be translated 'first rises brilliantly shining,' or perhaps I might say 'first rises visibly,' 'at the beginning of night,' *i.e.* 'in the evening twilight.' Now the first rising of a star in twilight is a most indefinite kind of phenomenon. Had we been given the last time on which it rose in twilight the problem would be more definite. But we must take the statement as we find it.

In the early part of February, say forty days after the Winter Solstice, the star would not rise until twilight was over and the eastern sky would be quite dark when the star appeared above the horizon. Each day the rising would occur about four minutes earlier than on the previous day, until a date arrived when the rising took place before the full darkness of night had set in. But it is hard to say precisely when twilight ends and darkness begins, and in determining this moment a great deal will depend on the idiosyncrasy of the observer.

Ancient astronomers devoted a good deal of attention to this phenomenon, and we are not without indications as to what their views were on the point. The question has also engaged the attention of modern investigators, but in discussing the meaning of the words of an ancient poet it will be best to be guided by the views of the ancients so far as they have come down to us. From a statement of Pliny's it would appear that Posidonius (80 B.C.) considered that twilight lasted till the sun had sunk 19° below the horizon. This, however, corresponds to the last vestige of daylight. The great Alexandrian astronomer Ptolemy (130 A.D.) fixes the appearance of first magnitude stars at the moment when the sun is 12° below the horizon. At this time there would still be a small but perceptible amount of light remaining. Let us call this a 12° twilight.

When a 12° twilight is reached the stars of the first magnitude begin to be visible, according to Ptolemy. But Arcturus is brighter than an average first magnitude star, and at any considerable altitude would ordinarily be seen in a brighter sky. On the

³⁰ p 347, 352, *O.D.* 500.

other hand, in the problem before us the star is by hypothesis close to the horizon, where the increased thickness of the atmosphere would diminish its brightness. Setting one consideration against the other, however, we cannot be far wrong in concluding that when the poet says the star first rose 'at the beginning of night' he may be taken to mean in a 12° twilight. The deeper the twilight we postulate the later will be the date indicated by the passage, whilst, if we assume that a very much brighter twilight is intended, it is doubtful whether the star would be visible at all to the naked eye; it would certainly not be conspicuous to the ordinary farmer. Thus a 6° twilight is, I believe, out of the question.

But we must consider what is meant exactly by the word *ἐπιέλλεται*. We can hardly suppose, I think, that the true astronomical rising, or even the apparent rising as accelerated by refraction, is here intended. A star would hardly be seen exactly on the horizon even though as bright as Arcturus is and in a clear, pellucid atmosphere like that of Greece. We must, therefore, give it a little margin, and suppose that the word still applies though the star may have reached an apparent altitude of 1° or 2° above the horizon, but I do not think that a star which had reached an altitude of 4° (equal to eight times the moon's diameter) above the horizon could, even in the loosest way of speaking, be said 'to rise.'

The passage with regard to the Pleiades, to which you referred me, while it cannot itself be used for determining Hesiod's date, throws, I think, some light on this point, that is to say, with regard to the height above the horizon at which the star would have been first detected near its rising.

Having computed the position in the sky of Alcyone (the principal star in the Pleiades group) for the year 900 B.C., a star which, being only of the third magnitude, would require a 14° twilight to become visible at all, I calculated its period of invisibility in the latitude of Athens and I find that, in order to account for a period of forty days as Hesiod gives, it must have been possible to follow the star down to within about 1° of the western horizon, and to pick it up again at the Eastern horizon at about the same altitude. Of course I cannot claim any high degree of precision for this result, but if a star of the third magnitude like Alcyone were visible within a degree or two of the horizon it is clear that Arcturus, which is more than ten times as bright, could hardly escape the same observer within the same limit of altitude.

I have, therefore, not contented myself with merely calculating the times of the true, and apparent, rising of the star, but have also computed the times at which it reached the altitudes 1° , 2° , 3° , and 4° , although I think that the last is quite incompatible with Hesiod's expression if I understand it aright. Also, as there may be some doubt as to Hesiod's latitude, I have computed the times for the latitudes $37^\circ.5$ and $38^\circ.5$, and from these, by interpolation, have deduced the results for latitude 38° .

I may perhaps say that Mr. Pearson's method of calculating the times of rising of the star and setting of the sun in those early days, as given in the paper you sent me, is of a rather rough and ready kind. He makes what he would probably call a *bold* shot at the change in the obliquity of the ecliptic, *i.e.* the change in the relative position of the planes of the Earth's equator and the Earth's orbit, but he does not appear to have taken any account of the change in the position of the orbit in its own plane, or of the change in the form of the orbit between Hesiod's time and ours. His mode of allowing for the precession of the equinoxes, although primitive, is fairly correct, but he has committed a grave error in neglecting altogether the proper motion of the star in virtue of which it has altered its position relatively to the other stars by more than $1^\circ.5$ in the interval which has elapsed.

In computing the following table I have allowed for the various changes enumerated in the last paragraph, calculating from modern tables with all needful precision, that is to say, with all the precision necessary to ensure an accuracy of a minute or so in the computed times. I do not think any of the figures given in my table can be in error by as much as two minutes. They are all expressed in apparent solar time, not mean

time, at the place of observation, wherever that may be, so that no question of Hesiod's longitude comes in.

An examination of the table will show that no date down to 850 B.C. will satisfy the conditions as I have supposed them to be. For instance, if we take the latitude of Helicon, about $38^{\circ}5'$, then on the given date,—i.e. sixty days after the Winter Solstice,—the sun reaches a depth of 12° below the horizon at 6^h 26^m. But in 850 B.C. the star has reached an altitude of 4° nearly half an hour previously. It had reached an altitude of 2° no less than forty-six minutes before the 12° twilight began. Even if we assume the latitude to have been as low as $37^{\circ}5'$, the time of the star's rising, allowing it any reasonable margin, will still precede that of a 12° twilight, nor is it possible, previous to the year 850 B.C., to make the time of the star's appearance follow that of the sun's reaching 12° below the horizon. Even if the possibility of a brighter twilight be admitted in order to make the time of star-rise equal to that of the 'beginning of darkness' we must suppose the star to have reached an altitude of at least 3° when spoken of as rising.

I think it is quite clear, therefore, that down to 850 B.C. this star cannot be said to have risen at the beginning of darkness on the 60th day after the Solstice, and if a later year is inadmissible I am afraid the poet's expression cannot be reconciled with the astronomical facts.

In all this I have assumed that the *ἐξήκοντα* is to be taken as exact. The interval elapsed since the Solstice might possibly have been determined with a fair degree of precision, but if the accuracy of this datum is open to question another source of uncertainty is introduced, and I might point out that an error of one day in this alone would bring about as large a change in the time of rising, or of reaching any given altitude, as an error of half a century in the year.

It just occurs to me that, should you think it worth while to get some one in Boeotia or Attica to make observations for you as to the first rising of Arcturus in twilight at the present time, some light might possibly be thrown on this question. Such observations should be made during the month of March or the early days of April. In the present year (1914) Arcturus will rise on March 13 after the sun has sunk below the horizon to a depth of 18° , when total darkness will have begun. On April 2 the star will have reached an altitude of 4° above the horizon before the sun has sunk 6° below it, and so it could not be said any longer to rise in twilight.

All that such an observer need do is to observe accurately the time at which Arcturus is first seen in the Eastern sky and the time at which twilight ends on as many days as possible between March 13 and April 2. Assuming we know his geographical position we could then compute the positions of the sun and star with regard to his horizon.

SIXTY DAYS AFTER THE WINTER SOLSTICE.

RISE OF ARCTURUS.

Latitude.		$37\frac{1}{2}^{\circ}$			38°			$38\frac{1}{2}^{\circ}$		
Date.		950 B.C.	900 B.C.	850 B.C.	950 B.C.	900 B.C.	850 B.C.	950 B.C.	900 B.C.	850 B.C.
True Rising	...	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Appt. „	...	5 26	5 30	5 34	5 23	5 27	5 32	5 20	5 25	5 29
		5 22	5 26	5 30	5 19	5 23	5 27	5 16	5 20	5 24
Altitude	1° ...	5 30	5 34	5 38	5 27	5 31	5 35	5 24	5 28	5 32
„	2° ...	5 38	5 42	5 46	5 35	5 39	5 43	5 32	5 36	5 40
„	3° ...	5 46	5 50	5 54	5 43	5 47	5 51	5 40	5 45	5 49
„	4° ...	5 54	5 58	6 2	5 51	5 55	5 59	5 49	5 53	5 57

SUNSET.

Latitude.	37½°		38		38½	
	h.	m.	h.	m.	h.	m.
Sunset	5	29	5	28	5	27
6° Below	5	56	5	56	5	56
12° „	6	27	6	27	6	26
18° „	6	57	6	57	6	57

NOTE ADDED LATER.

With regard to the apparent brightness of Arcturus near the horizon and the degree of twilight at which stars of different magnitudes become visible as the twilight increases much valuable information may be obtained from an important paper by Herr J. F. Julius Schmidt, formerly Director of the Royal Observatory, Athens. The paper is entitled “Ueber die Dämmerung” and is published in the *Astronomische Nachrichten*, No. 1495.

In this paper the author gives a table showing the depression of the Sun below the horizon at which stars of the 1st, 2nd, 3rd, 4th, 5th, and 6th magnitudes successively become visible at the zenith, and in another table he exhibits the successive altitudes at which, in consequence of the absorption of light in the atmosphere, the star Arcturus is reduced in brilliance by well defined gradations, until at an altitude of 1°.2 it appears to him no brighter than a star of the 5th magnitude does at the zenith.

This table would, I think, prove useful to anyone studying the question.

A.A.R.

NOTES ON THE LYCIAN ALPHABET.

§ 1.—*The Absence of θ.*

ON page 68 of the *Jahreshefte* of the Austrian Archaeological Institute for 1899, Band II., I discussed the value of the letter X , and with considerable hesitation decided in favour of Schmidt's opinion that it represents θ . The conclusion was based on the only direct evidence available, namely the rendering of the Persian Mithrapata by the Lycian $\text{ME}\text{X}\text{PP}\text{P}\text{T}\text{P}$. This was greatly discounted by the fact that Mithrapata is also rendered by *Mizrppata* (*T.A.M.* 64), and that Mithra appears also in Lycian *Mizretiye* (84) and the Cilician *Μισραϊος*, which rather suggested that the letter was a sibilant closely akin to the Lycian z . It now appears certain that the last conclusion is correct.

(1) The town of $\Sigma\acute{\iota}\mu\eta\nu\alpha$ appears on coins¹ as XEBVN and $\text{XEB}\text{A}\text{N}$ [N], with the same change of B into μ as in Τελεμησσός for *Telebehi*.² The identification is certified by the occurrence on coins marked XEBV and XE ³ of the same type (dolphin) and symbol (human eye) as on coins of Aperlae (*Prlli*),⁴ a town known to have been confederated with Simena.⁵

(2) The Greek θ is not rendered by X , but by Lycian T in 'Αθηνάϊος = *atānaz*. (*T.A.M.* i. 44b, 27),⁶ and by I in Ξανθίας = *kssēñzija* (*ibid.* 150, 1). The inference that Lycian had no equivalent for θ is confirmed by the fact that this letter is only found in five out of about 370 local and personal native proper names preserved in Greek inscriptions in Lycia proper.⁷ In a bilingual inscription (25) the Greek word $\Theta\rho\acute{\upsilon}\psi\iota\varsigma$ is used to represent the name *Crupsse* in accordance with a fashion, very prevalent

¹ Hill, *British Museum Catalogue, Lycia*, p. xxix.

² *Op. cit.* xl. ; see below.

³ *Inventaire Waddington* 2873 and 2872. The same type and symbol appear on Six, *Monnaies Lyciennes*, 118, where $\text{X}\text{E}\text{B}\text{V}$ should be read for $\text{E}\text{B}\text{V}\text{A}$ or $\text{A}\text{V}\text{E}\text{B}$.

⁴ *B.M. Cat.* p. 10.

⁵ Waddington, *Voyage en Asie-Mineure*, p. 89.

⁶ References giving a number only are to *Tituli Asiae Minoris*, vol. i.

⁷ It is necessary to exclude districts which were joined to Lycia at various dates for administrative purposes, as Milyas (really Phrygian, Arrian, *Anabasis*, i. 24, 5), part of Cibyratis (Strabo, p. 631 ; Lycian was not one of the languages spoken at Cibyra, *ibid.*), part of Caria (*J.H.S.* xv. 95 ; a Carian inscription exists in this district). In Sundwall, *Die einheimischen Namen der Lykier*, names from all these districts, and even from the territory of the Pisidian Lagbe, are quoted as Lycian.

in Asia Minor, for altering native names in such a way as to give them a Greek or partly Greek appearance. So also a Lycian **Ορνεμοτης* or **Ορνεμυτης* (compare *Ορνε-πειμης* and *Ορνε-ιδασα*, and Pisidian *Αρσα-μοτης* and *Οβρι-μοτης*⁸) is changed into *Ορνιμυθος* so as to give a false suggestion of a Greek compound like *πολύμυθος*. The name of the town *Θρύανδα* (St. Byz.) is evidently derived by a false etymology from *θρύον*, 'a rush.' The only real exceptions are *Βειθvs*,⁹ which is characteristically Thracian, but also Phrygian, and *Παναθιατις*, feminine, which also probably is borrowed from another district, as it shows a change of consonants which is certainly Phrygian as well as Thracian and Illyrian,¹⁰ but is quite unknown in Lycia.¹¹

(3) *ϝ* interchanges with *ι* in *ΜΕϝΡΡΓΡΤΡ* = *Mizrppata* and in *ϝϝϝϝΝΡ* (44b, 58) = *Kzzuna* (35, 18). Also with *s* in *ϝΓΡΞ* for *Sppñtaza*.

The conclusion is almost certain that *ϝ* is not *th* but a sibilant closely akin to the Lycian *z*, and I propose that it should be written as a Greek *ζ* instead of *θ*. This transcription will be used for the remainder of this article.¹²

§ 2.—The Change of *s* to *h*.

Confirmatory evidence of the close connexion of *ζ* with *z* is to be found in the fact that both letters share in the tendency of *s* to be exchanged with *h*. Thus *ζrñmā* (44b, 44) appears in another epitaph as *hrñmā* (84, 4), the identity of the words being established by the context: also *ζurtta* (44a, 18) is probably found as **hurtta* in the compound proper name *hurtt-uwetì* (94, 1). So also *zkkāna* (44a, 54) is identical with *hkkāne* (57, 5), and *zñpra* (55, 8) probably reappears in the proper name *hñprāma* (37, 5).

⁸ Names quoted without a reference will be found in the index to Sundwall, *op. cit.*, a work involving great research, excellently carried out.

⁹ Sura in Lycia, *Reisen* ii. 83; Aezani in Phrygia, *C.I.G.* 3837 (add.); cf. Tomaschek, *Die alten Thraker*, ii. 13. No genuine native words in Lycia begin with *B*.

¹⁰ In Southern Phrygia, and especially in Lycaonia, where Phrygian was probably spoken, a good number of compound proper names of the older native or Lycian type survived, but in their transmission through Phrygian mouths they often underwent modifications according to Phrygian phonetic laws. *Παναθιατις* is an instance; *θιατις* is for *Tatis* (Phrygia), feminine from *Tatas*, whence also *Θαθας* and *Θαθois* (Isauria), just as *Θιουθiois* (Phrygia: Kretschmer, *Einleitung*, p. 301), also *Θουθois* (Lycaonia), is from *Toutης*, *Tottης*. Compare the Southern Phrygian towns *Τυρσα* or *Θυρσα*, and *Τετθα* or

Θετθα. Compare also the Thracian *-κενθος* and *-κεντιος*, *-κυθης* and *Cuties* (Tomaschek, *Die alten Thraker*, ii. pp. 46 and 51), etc. In all these cases *θ*- or *θi*- arises from *τj*-, as in Mes-sapian-Illyrian *Baleθas* on a coin of Baletium: also *Blatθihē*, from *Blatties*, *Blattius* (Deecke, *Rheinisches Museum*, vol. xxxvii. p. 386), **Lasodes* from **Lasoties* (p. 391), etc., etc.

¹¹ In Cilicia, where the names generally follow the same laws as in Lycia, *θ* is remarkably rare, and the very few exceptions seem all to be Phrygian. For instance, in the great Corycian inscription (*J.H.S.* xv. pp. 243 *segg.*) *θ* is only found in the Phrygian-Thracian *Βιθoς*.

¹² It must not be supposed that either this letter or the Lycian *ι* are phonetic equivalents of the Greek *ζ*, which is a double letter, and in Asia Minor arises out of *δ*. The transcription *ζ* is merely proposed in conformity with *z*, used in *T.A.M.* for reasons of typographical convenience.

The interchange of *s* and *h* is well established. In the dialect for which it is safest to adopt the name of Lycian 2,¹³ the letter *h* is absent, and in some cases has been shown to be replaced by *s*.¹⁴ In particular, the adjectival suffix which takes the place of a genitive case,¹⁵ *-hi* in common nouns, and *-h*, *-he* in proper names, appears as *-si*, *-s*, and *-se* (*-sa*).¹⁶ This gives the native Lycian form of the suffix *-σ-* (*-σσ-*), so common in local names in Asia Minor. The city of *tuminesi*, mentioned along with Candyba on the north side of the Xanthian stele,¹⁷ is obviously the *tuminehi* likewise associated with Candyba (as well as *arūna*, Xanthus, and *cerḡḡi*,¹⁸ a town of unknown position) on the east side.¹⁹ On the south side the lower *tuminehi* is associated with *zagaba* and *pttara* (Patara).²⁰ It is certain that *-si* (*-hi*) is a formative suffix and makes part of the name.²¹ I cannot doubt therefore that *tuminesi* is identical with *Τυμισσός*, which is cited in Stephanus Byzantinus as a city of Caria, but the derivation of the name from a Xanthian word, and the reference to the Lycian history of Alexander Polyhistor, indicate that *Karías* is one of the numerous slips of the epitomist arising out of the next entry, *Τύμνος, πόλις Καρίας*. It seems to have been really in Lycia.²²

The identification of *tuminesi* or *tuminehi* with *Τυμισσός* is confirmed by that of *telebehi*²³ with *Τελμισσός*, *Τελμησσός*, or *Τελεμησσός*.²⁴ This is supported by various instances of the interchange of *b* and *m*;²⁵

¹³ This dialect occurs only on the western and part of the northern side of the Xanthian stele (44, c and d), and on a sarcophagus at Antiphellus (55); see *T.A.M.* i. p. 45.

¹⁴ See Bugge, *Lykische Studien*, ii. 102. The identity of **masai* (Lycian 2) with *māhāi* (Lycian 1) is proved by a comparison of 44 d, 14, *trqiz seb(e) uwedriz : mlat : masaiz*, with 88, 6, *trqqas se māhāi huwedri*. So also *esetesi* (44 d, 12) = *ehetehi* (*ib.* b, 48); *sladi* (44 d, 63) = *hladi* (111, 5), etc. Only one word is written with *h*, possibly by error (44 c, 54).

¹⁵ This declinable adjectival suffix is commonly termed the 'genitive' by scholars who have written on Lycian, and their example will here be followed merely for convenience.

¹⁶ As *atlasi* (44 d, 47) = *allahi* (36, 7, etc.); *esetesi* = *ehetehi*; *arppakus* (44 c, 57) = *arppakuḥ* (44 a, 30); *kuprillese* (44 d, 11) = *kuprilleh* (44 a, 31); *kerigasa* (44 d, 8) = *kerigahe* (44 a, 10). See Bugge, *op. cit.* i. 67.

¹⁷ 44 c, 54, *kāzbi* : *tuminesi*.

¹⁸ In 82, read: *uhube : cerḡḡis habudah tideimi, OσσuBas* of *Cerḡḡi*, son of *Habuda*. The upper and lower extremities of the *s* are legible on the cast. The tomb is at Candyba. The association with Candyba in the other passages quoted suggests that the two cities were near together.

¹⁹ 44 b, 49, *arūna* : *tuminehi* : *cerḡḡi* : *kāzbi*. Cf. 44 b, 54, *tuminehija* : *cumezija* : *kāzbija* :

cumezija, which words are closely preceded by *arūna*, and followed by *cerḡḡi*.

²⁰ 44 a, 42, *zagaba* — *ētri* : *tuminehi* : — *pttara*. *Zagaba* seems to have been connected at one time with Antiphellus. Possibly the upper *tuminehi* was mentioned in 44 b, 6, *cbihu* : *tu[tuminehi] : hrjzi* : *cbihu* : *kāzbi* : *cbihu* —; *cerḡḡi* is mentioned two lines further on.

²¹ This is proved by the derived adjective *tuminehija*, and by the associated names of cities which are not in the genitive.

²² It does not seem possible to identify *tuminehi* with the *Τύμνη* (*var. lec. Τύμνηνα*), *κώμη Λυκίας*, of Stephanus, which should certainly be **tumēne*, or **tumēñne*. Nor is it likely that the league coinage with *Tv-* can belong to this village; it should be given either to Tymnissus or Tyberissus.

²³ Here also the suffix is formative, as is proved by the ethnic *telebehike* on coins.

²⁴ This form, which approaches nearest to the Lycian, is found on coins as well as in inscriptions. Telmissus in Caria was called *Τελμισσός* by Aristophanes (*St. Byz. s.v.*).

²⁵ As *Πυριβάτης* for *Purihimeti* in a bilingual inscription (25), *zagama* for *zagaba* on coins, and the above-mentioned *Σίμνη* for *ḡibān[a]*: also *Βλαῦνδος* for *Μλαῦνδος*, *Λαιβηνος* and *Λαιμηνος* in Phrygia (Ramsay, *Cities and Bishoprics*, i. 133).

also by the coinage of *telebehi*, which points to a city of some importance on the borders of Caria.²⁶ These indications are borne out both as to importance and position by the mention of *telebehi* between Pinara and Cadyanda in an inscription at Tlos (26, 21). The old identification with the Τηλέφιος δῆμος of Stephanus seems untenable,²⁷ since the spring of Telephus, from which its name was evidently derived, was only seven stades or little over three-quarters of a mile from Patara. It was, therefore, a mere suburb of that town, and cannot have coined distinct money. In that case Τελεμησσός is derived from a form **telebesi* for *telebehi*, like *tuminesi* for *tuminehi*. Another example of *-hi* corresponding to *-σσός* is probably found in *tuburehi* (44b, 15), which may well represent Τυβερισσός, a town of Lycia.²⁸ If so, *nagurahi* in the same passage should also be a town **Nagorasσός*. Further examples occur in a list, probably of demes, in an inscription at Tlos (26, 13-15), among which are *mūnātahi* and *haqaduwehe*.

If the suffix *-σσός*, to which such great importance has been attached, is represented in its native form by *-hi* in ordinary Lycian (Lycian 1), and by *-si* in Lycian 2, it becomes an interesting question which dialect is the older: for though the change of *s* to *h* may appear in itself the more probable, the reverse is perfectly possible. The date of the monuments affords no evidence on this point. On the Xanthian stele the two dialects are used concurrently, though the part written in Lycian 2 was actually engraved after the rest; while the tomb at Antiphellus must from the lettering belong to the same period, a little before or after B.C. 400. Epitaphs are found in Lycian 1 both considerably earlier, as 77, and much later, as 6.

There are, however, some grounds for supposing Lycian 2 to be the more archaic dialect. First, its very frequent use of *t* instead of the usual

²⁶ Coinage of the dynasts *erbbina* and *ddenevele* belongs to this city, as well as that with its own name, forming a comparatively large series (*Brit. Mus. Cat. Lycia*, p. xl.). The letters *er* in the Carian alphabet appear on a coin of *erbbina*.

²⁷ Sundwall, who adheres to the older theory, maintains, p. 162, that *demes* could coin money, but his argument is based on a misapprehension. He quotes generally Ramsay, *Cities and Bishoprics*, i. chapter 3, but the references there are to the δῆμος of the Ephesians (p. 107, note 5) and the δῆμος of Hierapolis (p. 109), which have no more analogy to the Τηλέφιος δῆμος than the δῆμος of Athens has to the δῆμος of Ceramicus. At the same time it is quite probable that Telephus either was, or was identified with, a native hero of Asia Minor, or that his worship was carried there at a very early date. If so, the town of Telebehi, as well as the *deme* of Patara, pro-

bably derived its name from him, on the analogy of other local names mentioned in the next note. This would account for the appearance of his father Heracles on its coins.

²⁸ The name is derived from Τούβερις, a native hero, brother of Termeris (St. Byz. s.v. "Τλαμοι). Men seem to have been named after him **tuburi*, genitive *tuburiz* (44 c, 53, 57, etc.), dative probably *tubure* (69, 2). Other names of towns are derived from gods or heroes, with the same suffix, as *Navesσός* (from the goddess Nana), *Κολυβρασσός* (from the hero Κολάβρας, *F.H.G.* iv. 428); also from personal proper names, as *Τυμισσός* from Τύμνης, *Σαβαλασσός* from Σαβάλας, and many others. So with other suffixes: *Καδανδα* from *Καδουας*, *Κυδραρα* from *Κυδρης*, *Ἀρσαδα* from *Ἀρσας*, etc., etc. This formation with a suffix from personal proper names, divine or human, seems to be usual, if not invariable, in the case of towns in Lycian and the allied languages.

c (as *tbi* = *cbi*, *tbis* = *cbihu*, &c.) is certainly older in the case of the ordinary Lycian *cbatra*, 'daughter,' which either is, or is borrowed from, an Indo-European word represented in Greek by *θυγάτηρ*, and indicates an earlier **tbatra*. Secondly, though *h* is practically completely absent in Lycian 2, *s* is by no means regularly replaced by *h* in Lycian 1, but only in certain positions. Initial *s* before a consonant, common enough in Lycian 2, is elsewhere only found in certain personal proper names, and in three or four words borrowed from the Greek: otherwise it only appears in one word of unknown significance.²⁹ Again, intervocalic *s*, except in personal proper names, is of extreme rarity in Lycian 1 after *a*, and still more after *e*,³⁰ though not unusual after *u* or *i*. This apparently transitional condition still prevails in the latest known inscriptions of about B.C. 300, perhaps a century later than those written in Lycian 2. It is not probable that a change of *h* into *s* was already complete in Lycian 2, which was still only partial in Lycian 1 at a much later date. It is far more likely that a change of *s* into *h* had begun in Lycian 1, and that Lycian 2 was a more archaic dialect which had not been affected by it.

On this supposition it is easy to explain the survival in personal proper names of such archaisms as intervocalic *s* after *a* and *e*, and initial *s* before consonants. It was a very general custom in Asia Minor to name a child after his grandfather, which would necessarily preserve old forms, just as modern surnames, being hereditary, often perpetuate disused pronunciations like Gould or Bartram.³¹

It is therefore highly probable that the forms *tuminesi* and **telebesi* are older than *tuminehi* and *telebehi*, and that the -*σ*- in *Τυμινισός* and *Τελμισσός* represents an original native *s*. The very close contact of the Greeks with Lycia even in the time of Homer readily accounts for their adoption of the more ancient forms. When the country became hellenised Greek names entirely prevailed over the native, even in such cases as Xanthus and Antiphellus, where they were altogether different, and thus the -*σ*- suffix was re-established in places where it had for some time been disused.

This conclusion as to the priority of -*s*- to -*h*- is inconsistent with a recent attempt to identify the Lycian with the Carian genitive. Dr. Sundwall connects the Lycian -*h* with a supposed Carian genitive in -*κ*.³² The letter *⓪*, which he renders by *κ*, is considered to be a vowel both by Sayce

²⁹ 44 b, 62, *sberide*. In 107, 1, *s(e) ladāi* should be read.

³⁰ For example, in the part of the Xanthian stele written in Lycian 1, apart from proper names, it is only found in one word after *e*, and in one word (probably from the same stem) after *a*.

³¹ This conservatism in personal names is not constant; thus from the common noun

hīmī is formed *hīmīdewe* as well as the archaic *slīmewe*. It sometimes happens that later Greek inscriptions preserve the older form, where the Lycian inscriptions give the newer; as *Οσσυβας* compared with *uhube*, *Οσσερας* with *uhetēi*.

³² *Zu den kurischen Inschriften*, *Klio*, vol. xi. pp. 464 seqq.

(who renders it by *ū*) and by Kretschmer,³³ for sufficient reasons. In the *Transactions of the Society of Biblical Archaeology*, vol. ix. Pl. II., the same name is written as *ukhove* in No. 11 and *ukhove* in No. 20. Another name (if Professor Sayce's transliteration is followed) appears in No. 25 as *rav(u)oss*, but in No. 24 as *rav(u)oss*. Sundwall³⁴ does not hesitate to emend the Φ in both names into \circ on pure conjecture, being convinced on other grounds that the letter is a guttural. His grounds are that he finds four other Carian genitives ending in a guttural;³⁵ that there are already enough vowels in the language; and that a certain name beginning with *m(e)u* certainly belongs to the same stem as *m(i)gula* and others beginning with *m(e)g-* and *māku-*. Stronger arguments would be required to justify the alteration of the text in two distinct inscriptions. There is no reason to doubt that the letter is a vowel.

Nor can any support to Sundwall's theory be derived from a supposed Lycian genitive in κ .³⁶ The letter \diamond appears in two archaic inscriptions (106 and 128) as a variant of *c* (Lycian *K*). The same sign is found in three later inscriptions after proper names. In two of these it follows names in the genitive, which are already provided with the usual genitive suffix *-h*. Thus, in 54, *kudaliḡ—murāzah* \diamond *tide[imī]* is identical with *kudaliḡ murāzah tideimi* in 72: the sign occurs twice besides in 54, and once in 149, used in a similar way.³⁷ In these cases it cannot be said that it is, but only that it follows, a genitive, since the suffix is complete without it. In 69, however, it follows a different case: here we find *ipresida* \diamond *arnpa* \diamond *tideimi tubure* \diamond . Since *tideimi*, 'son,' cannot possibly be genitive, but must here be either nominative or dative,³⁸ the other words cannot all be genitives, nor is there any reason to think them so, as the genitive suffix *-h* is not present here as it is in 54 and 149. It is, in fact, almost certain that one of the names must be in apposition to *tideimi*, and therefore either nominative or dative.³⁹ There is to my mind no doubt that here, also, the

³³ *Einleitung*, p. 382. I have followed Sayce's transliteration as given in vol. ix. of *T.S.B.A.* for convenience of reference. Some slight alterations adopted in vol. xxviii. do not affect the present argument.

³⁴ *Op. cit.* p. 466.

³⁵ The supposed final *k* in Sayce, ix. iv. 25, is probably the first letter of a different (Phoenician) graffito. There is nothing to show that the word ending in *-g* in Sayce, *T.S.B.A.* xvii. i. 1, is a genitive, while that in ix. iv. 11 appears from comparison with 20 to be incomplete: it is also improbable that the letter is really *g*. In ix. ii. 3, the base of a bronze Apis bears three inscriptions written by three different men, since the two in Carian are not alike in lettering and the proper name in the hieroglyphic does not recur in either. Therefore *mavaān* is Apis, and *arnokhhe* is the dedicatory name in the nominative. It is very doubtful if the letter *h* is a correct trans-

literation.

³⁶ *Op. cit.* p. 466, and *Die einheimischen Namen*, p. 38.

³⁷ A termination in *-hκ* is very extraordinary in Lycian, where no final consonants are permissible except *-s* and *-h*: moreover *c*, of which κ is a variant, cannot follow another consonant.

³⁸ An accusative would only be possible in the dedication of a statue, but this is a rock-tomb. The genitive of *tideimi* would be **tideimehi*; therefore there can be no question of the dropping of a final *-h*, such as sometimes occurs in proper names (in 61, 127, 145, and 5), and may possibly be found here in *arnpa*.

³⁹ Dr. Sundwall does not deny that the word *tideimi* as it stands in the text is inconsistent with his theory, but he once more has recourse to emendation: 'wohl aus Versehen hat man es unterlassen auch die Apposition tideimi zu declinieren,' (*Die einheimischen Namen der Lykier*, p. 38).

sign \diamond follows the case-suffix, which is complete without it: so that *tubure* is the dative of a proper name **tuburi*, of which the correct genitive in Lycian 2 appears as *tuburiz* (44c, 53, etc.).⁴⁰ The meaning, therefore, is 'Ipresida (nominative) for Arūpa (and) son Tuburi,' which may be compared with *ἐαυτῶι καὶ τῇ γυναικὶ καὶ υἱῶι Πυβιάλληι* (*tideimi pubieleje*) in the bilingual epitaph 119: or possibly 'Ipresida (son) of Arūpa for (his) son Tuburi.' In any case the sign in question cannot represent a case-ending.⁴¹

There is, therefore, no evidence of the existence of a genitive in *-κ*, common to Lycian and Carian, and consequently no reason to derive the suffix *-h* from an earlier guttural.⁴² On the contrary the Lycian *-h*- (or more correctly *-ahi*, *-ehi*), which forms possessive, patronymic, and ethnic adjectives, almost certainly represents an earlier *-asi*, *-esi*, and this is the true native form of the suffix *-ασσός*, *-ησσός*, &c., which appears so commonly in the Greek version of local names.

W. ARKWRIGHT.

⁴⁰ For *tuburi* (= *Τουβερῖς*) see above, p. 14, note 1. Personal proper names may make a dative in *-a* and *-e*, as some other substantives do: they do not appear to make a dative in *-i*. More usually *-e* is suffixed, joined by the letter *-j*-, so that the typical dative of personal names is in *a-j-e* or *e-j-e*. So also their genitive is very rarely in *-ahi* (**-ehi*) as in common nouns, but normally either in *-ah*, *-eh* (by apocope for *-ahi*, *-ehi*), or *-e* is suffixed, making *-ah-e*, *-eh-e*. This *-e* suffix, added to the genitive and dative singular, is not a case-ending, but a distinguishing mark of personal proper names, in which alone it is found.

⁴¹ The only common characteristic of the

words which it follows is that they are all personal proper names. It might therefore be analogous to the suffix *-e* mentioned in the preceding note. Since however a termination in *-hκ* seems impossible, it is more probably a detached symbol, originally perhaps an initial or abbreviation, indicating the rank or position of the person named, on the analogy of George R., etc.

⁴² Kretschmer's contention (*Einleitung*, p. 380) that there was a Carian genitive in *-he* is of course not inconsistent with the derivation of the similar Lycian suffix from an earlier *-se*. I incline, however, to believe that the Carian letter which is rendered by *h* is really a *i*.

EUPHRONIOS AND HIS COLLEAGUES.¹

[PLATE IV.]

THE Euphronios problem is more than twenty years old: in 1893, Hartwig, in his *Meisterschalen*, first attributed to the painter <Ones>imos the Troilos kylix in Perugia bearing the single signature 'Ευφρόνιος ἐποίησεν. Since then the question has been considerably extended and modified, and the moment has perhaps come for some sort of summary of results.

The attempted answer to the particular question does not profess to be a solution of the whole problem of ἔγραψεν and ἐποίησεν. Dispassionate analysis of style tends more and more to separate potter from painter in most well-known workshops. Makron was in all probability directly or indirectly responsible for the painting of all Hieron's vases, Brygos a potter solely. It is, however, impossible to generalise on the subject. In the black-figure period there is the notable exception of Exekias: there is no difference of style between the vases signed 'Εξήκκας ἐποίησεν and 'Εξήκκας ἔγραψε καὶποίησε με. Again in the strong red-figured period we have the instance of the Gotha kylix (F.R.H. iii. Abb. 7), with its inscriptions ασιαδες (retrograde) and a dubious inscription ending εσεν (left to right)—i.e. a potter's signature. The painter's name is clearly that of Pasiades, the style of the exterior unmistakably that of his other vases;² but these are signed with ἐποίησεν. Here, then, is a contemporary of Euphronios whose ἐποίησεν includes ἔγραψεν.

Nor was the relation of potter to painter the same in every case. Sometimes the one, sometimes the other, was the dominant partner; for we may conclude that where a signature occurs constantly alone, and rarely in conjunction with other names, the potter or painter in question was his own master, and gave his name, so to speak, to the firm. Hieron is an instance of a potter, Duris of a painter in this capacity. Clearly, in the former case, the potter's name was of most account, since so eminent an artist as his colleague Makron only signed one of his many paintings. Of Duris' signed vases, on the other hand, only five bear other potter's names, and one, it is

¹ I wish to thank especially M. Pottier, Dr. Zahn, and Dr. Sieveking for facilities afforded to me in the Louvre, the Berlin and Munich

Museums.

² The interior appears to be by Peithinos.

expressly stated, he made himself. The evidence of style and that of the favourites' names forbid us to regard all these five as early works painted by Duris for other and independent potters; rather we must suppose him to have been throughout his own master, with potters working under him.

In the case of Euphronios, it is most probable that the vases signed with ἔγραψεν were painted for independent potters. The coupling of his name with that of Chachrylion, a potter of some standing and senior to Euphronios, and the probable attribution to the latter's brush of the beautiful Patroklos kylix made by Sosias, point to this conclusion.

The Signed Vases of Euphronios and their Dating.

The vases, fourteen in number, which bear the name of Euphronios, followed by ἔγραψεν or ἐποίησεν, form at the same time the most fascinating and the most problematic series in the history of signed vases. They are by no means of equal merit, but none are without interest, and all of skilled workmanship. The modification of the style, and the marked technical advance make it certain that the series covers a considerable period, and enable us to conjecture with some certainty the relative dates of their production. The evidence of the favourites' names, known to us from sources outside this cycle, corroborates that of style.

But the question of dating cannot be dissociated from the more difficult question of authorship first raised by Hartwig with regard to the Troilos kylix, and again with a wider application by Furtwängler. Was Euphronios the most versatile of the vase-painters? Or are versatility and a long life sufficient explanations of such differences in style and technique as are apparent between the works of his supposed first and second periods? Or was the painter Euphronios the author only of the group of works actually signed ἔγραψεν (unquestionably the earliest of the series), the painter who at least once in his early days was associated with a potter of the severe style, Chachrylion? If so, it is natural to suppose that he was at first a painter attached in all likelihood to the workshop of Chachrylion, and set up in later life a workshop of his own, employing various artists to paint his vases, for there is as much divergence between certain vases with the ἐποίησεν signature as between any of these and the vases signed with ἔγραψεν. Happily or unhappily, there is, as usual in problems of vase-painting, no external evidence of any weight; it is on the internal evidence of style alone that any argument can be based.

The period covered by the vases in question appears to be one of about forty years, the dates being fairly accurately fixed by the favourites' names employed. The Antaios krater and the Geryon kylix both bear the inscription Λέαγρος καλός, while close to one of the hetairai of the Petrograd psykter are the words τὴν τάνδε λατάσσω Λέαγρε. These three vases, together with two fragmentary ones, on which no such names remain, are from their style the earliest of the series; in the case of the three just named the presence of the name Leagros leaves no room for doubt, for there

seems every reason to identify this Leagros with the *στρατηγός* of that name, killed in 467.³ The name occurs further on another vase of the potter Chachrylion, on one by Oltos and Euxitheos, on a series of unsigned works of the severe r.-f. style, and even on a few of the b.-f. Thus the beginning of Euphronios' career is fixed at the first few years of the fifth century, c. 500-480 B.C.

Of the remaining vases, all signed *Εὐφρόνιος ἐποίησεν*, two bear the name of Panaitios, two that of Lykos, and one that of Glaukon. The first is found also on several unsigned vases, as well as on one by Duris. The two kylikes of Euphronios, the B.M. Eurystheus and the Boston komos kylikes, appear somewhat later in date than the Leagros group, but have not the technical ease of the Perugia or Berlin kylix. They form, with two others, a group of very distinct style.

The name Lykos is found on a number of vases of the most advanced 'strong style,' all unsigned but the two kylikes from Euphronios' workshop, namely the Perugia Troilos kylix, and that of the horsemen in Berlin, which bears, besides the signature of Euphronios, that of a painter, Onesimos.⁴ In the latter case the name of Lykos is combined with that of Erothemis, elsewhere unknown.

The Berlin polychrome kylix, the latest of the extant signed vases of Euphronios, has the inscription *Γλαύκων καλός*. The Glaukon referred to here and on several unsigned vases, notably the beautiful Aphrodite kylix (D 2) of the British Museum, must be the Glaukon who was a son of Leagros and himself a commander in the year 433. The identification is confirmed by three unsigned vases⁵ with the inscription *Γλαύκων καλὸς Λεάγρου*.

With some rough idea of the dating of the Euphronian series, it becomes easier to examine the different groups just distinguished, and to see what light may be thrown on the vexed question of authorship. Let us first try to define the style of the group distinguished by the *ἔγραψεν* signature, and certain other works which there is reason to associate with it, leaving the rest of the series and its attendant problems till later.

EUPHRONIOS AS PAINTER.

The Signed Vases.

The selection which chance has made from among the paintings of Euphronios is happily varied. The three complete vases bearing the signature *Εὐφρόνιος ἔγραψεν* are the Antaios krater in the Louvre, the psykter in Petrograd, and the Geryon kylix in Munich;⁶ to these must be added the Acropolis kylix fragments representing the marriage of Peleus and

³ Hartwig, *Meist.* p. 3, and Klein, *Liebl.* p. 70 foll.

⁴ The most plausible completion of the name, of which only the last four letters are actually extant.

⁵ R.-f. lekythoi in Ashmolean (320) and Athens N.M. (1645, *Cat.* 1193), and white lekythos in Bonn.

⁶ F.R. Tafeln 92-3, 63, and 22.

Thetis.⁷ The differences of size and shape alone have given to these vases a great variety of composition: the pedimental designs of the krater, the rich full composition of the kylix, the well spaced figures of the psykter. Add to this diversity of subject, from genre to heroic legend, and a large repertoire of figures, male and female, nude and draped. With so wide a basis for comparison, it is possible to form a fairly complete idea of Euphronios' style, and to add to the list of his paintings a considerable variety of unsigned vases.

To lovers of the archaic these early works of Euphronios will probably always be the most satisfying of Greek vases. The traditions of black-figured painting are not long left behind, the influence of the early artists of the red-figured style is still predominant: but we are face to face for the first time with a real master of the new style, an artist independent in fancy, free from mannerism, the herald of a new generation. The influence of Euthymides is easy to recognise. There is no doubt that the two artists worked simultaneously for some part of their careers: Euthymides' triumphant *ὡς οὐδέποτε Εὐφρόνιος* is the confession of an older painter's jealousy for the growing fame of a young rival. The work of Euthymides thus signalised⁸ is indeed among his very best, but it is easily surpassed by any one of the vases painted by Euphronios, whose keen untrammelled imagination proclaims the true artist, and whose sense of composition far exceeds that of any of his predecessors, and is rarely paralleled among his contemporaries or successors.

The Antaios Krater.

The Antaios krater, probably the earliest of Euphronios' extant works, strikes the keynote of his style, the individualisation or power to seize the essential of a character or episode, a faculty which gives to his compositions a reality to which those of Euthymides with all their mannered insistence never attained. Nothing could be better, more calculated to hold the imagination, than the grim strength of Herakles' struggle with the monstrous Antaios, while the giant's womenfolk fly in terror to right and left. The frontal torso of Antaios is an excellent piece of drawing; the muscles, shown on this large scale with great exactness, are of particular value in the detailed analysis of Euphronios' style. Most noticeable is the careful drawing of hands and feet, a point in which Euphronios excels any other painter;⁹ the best example in this vase is the upturned right hand of Antaios.

The Petrograd Psykter.

The same is apparent in the Petrograd psykter. Here we may note also the type of female head characteristic of Euphronios, the long straight line of the forehead and nose, the symmetrical fringe of hair framing the face, the small well modelled chin. The psykter is of special interest for its fine

⁷ *Jahrb.* 1881, Taf. 2, and *A.M.* 1882, p. 105.

⁸ Amphora in Munich (2307 <378>).

⁹ See Fig. 1.

attack on a difficult subject. The nude female figure, though not excluded from vase-painting of this date¹⁰ as from contemporary sculpture, is yet by no means common. Euphronios has chosen to represent a series of four perfectly nude figures and has succeeded in making them beautiful. The various reclining attitudes are full of grace, the lines of the figure round and plastic. The obvious comparison of the vase with the Ludovisi Throne indeed speaks for itself. The style is similar throughout, but the fluting figure (*Σεκλίνη*) is almost identical with that of the side-piece of the "throne." Here we have the same position of the girl leaning against a cushion, the raised knee, both hands engaged with the flute, the wavy fringe of hair below the head-dress, the same delightful profile contour.

It is worth while to consider the meaning of this likeness. The hetaira of the Ludovisi relief is unique, being (so far as I know) the only nude female figure in classical sculpture before the fourth century. It is startling, the only time that such a figure does occur, to find it exactly paralleled in painting. As to the relative dates of the two works there can be no doubt: the vase cannot be placed later than 490 B.C., the relief not earlier (most authorities place it later) than 470. The type here clearly originated in vase-painting, and it was the sculptor who took it over ready-made. Nor is the reason far to seek. Genre scenes being practically unknown, outside the special class of grave reliefs, we are not likely to find in sculpture such a figure as that of the hetaira who figures so freely in the banquet scenes of the vase-painters; nor was any goddess or heroine ever represented nude until Praxiteles created his Aphrodite. Even then the people of Cos, we understand from Pliny, were shocked at the innovation, and rejected the statue immortalised thereafter as the Cnidian in favour of one draped. The nude woman is only there for a special significance. The sculptor wished to portray two types of Aphrodite-worship, and did so with a Greek's lucid symbolism by carving on one side a bride, on the other a hetaira.¹¹ The latter figure he borrowed from the studio of the vase-painter.

The Geryon Kylix.

The style of Euphronios is perhaps best illustrated in the fine kylix in Munich (3620<337>), representing the contest of Herakles with Geryon. It has close affinities with the Antaios krater, which are only partially obscured by the difference of treatment inherent in that of shape; but Euphronios is here completely emancipated from the earlier tradition, and not a figure of the kylix could be attributed to Euthymides. The composition is far in advance of anything hitherto produced by a ceramic artist. It falls into two groups, on one side Herakles and the triple Geryon, with the

¹⁰ Cf. in particular the hydria of Euthymides, or Phintias (so Hoppin, *Euthymides*, p. 16, and Sieveking, in his *Führer*), in Munich, (2421 <6>), Klein, *Euphronios*, p. 110.

¹¹ I follow without hesitation the interpretation of the Throne as some kind of monument to Aphrodite, the central slab representing her birth from the water.

persons immediately concerned in the fight, on the other a dignified procession of warriors with Geryon's oxen. The balance is admirable, and there is at the same time great variety in the figures. Euphronios' vivid imagination has given a snake's head to the tail of Geryon's double-headed hound. Another fanciful touch is the neat plaiting of the tails of the solemn oxen. The interior of the kylix is filled by a demure little horseman in a rich chlamys, probably the *καλὸς Λέαιγρος* himself, and the first of a series of equestrian figures similarly used.

The Thetis Fragments and the Patroklos Kylix of Sosias.

There remain the kylix fragments from the Acropolis.¹² The style leaves no doubt as to the completion of the inscription [*Ευφρον*]*ιος*

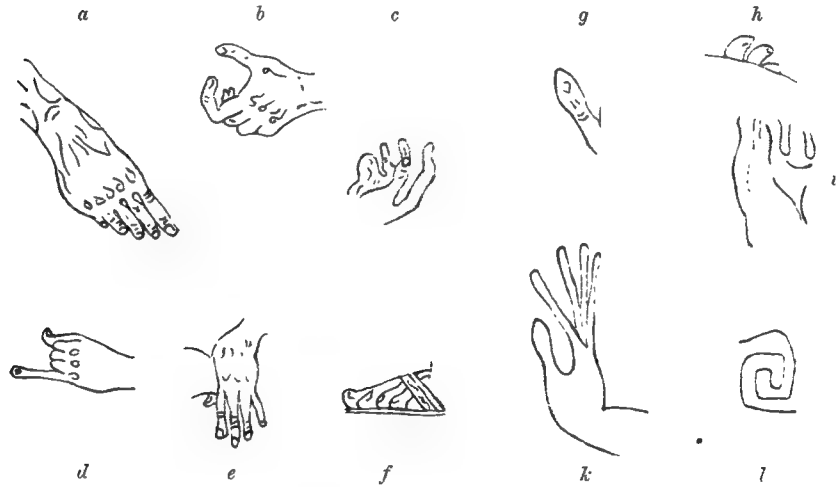


FIG. 1.

a, b, c, from Sosias' Kylix.

d, e, from Thetis fragments.

f, from Iliupersis fragments.

g, from Kylix in Berlin, Inv. 3232.

h, i, from fragment in Berlin. 2250.

k, typical hand by Peithinos.

l, locked hands by Peithinos.

εγραψεν. The fragments, which represent the marriage of Peleus and Thetis, are closely allied in style to the Geryon kylix, but their most remarkable analogies are with the kylix signed by the potter Sosias in Berlin.¹³ The interior of Sosias' kylix shows Achilles binding up the arm of the wounded Patroklos, the exterior the entry of Herakles into Olympus with a whole cortège of deities. It is in the latter that the analogy with the Thetis fragments is most apparent. The drapery is exactly similar in the two works; especially noticeable is the peculiar kolpos, tightly clinging, with a crinkled edge, which occurs also on the Antaios krater, and seems to have

¹² Not known to Klein, *Jahrb.* 1888, Taf. 2, and *A.M.* 1882, p. 105.

¹³ F.R.H. Taf. 123.

been borrowed from Euthymides. The interior is of far more interest and beauty than either the exterior or the Thetis fragments, but resemblances to the latter are not far to seek. The hand of Achilles is treated in exactly the same way as that of Peleus. The drawing in both cases is remarkable, as is that of the foot, similarly treated, of Patroklos.¹⁴


There is good reason to attribute the painting of Sosias' kylix to Euphronios.¹⁵ Apart from remarkable resemblances in detail, there is behind the execution a quality of mind which we recognised as characteristic of Euphronios, the sensitiveness of genius, which is quick to catch the feeling underlying an incident and able to express it through any degree of technical limitation. It is this that gives peculiar charm to the group of the interior. The whole scene is full of vivid touches and delicate feeling, as in the bearded Patroklos turning his head away from Achilles, while he rests one thumb on the bandage to help him, in the very youthful face and figure of Achilles, and his complete concentration on his task. We cannot but feel the same imagination at work that conceived the grim determination of the Antaios krater, or the irresponsible gaiety of the Petrograd psykter.

The Iliupersis Fragments.

Another set of kylix fragments must be noticed here, those of the Iliupersis in Berlin (2281),¹⁶ which, though they bear a mutilated name, certainly to be completed as that of Euphronios, are none the less problematic, since the determining word of the signature is lost. The interior of the kylix represented the murder of Astyanax; the figure of Neoptolemos is completely lost, but a large part of that of Astyanax remains. He is seen full-face, according to a common convention in scenes of this kind,¹⁷ and the head

¹⁴ See Fig. 1 for drawings of hands and feet in Euphronios' style.

¹⁵ So Hauser in his publication of it in F.R.H., though he does not commit himself definitely. Furtwangler's attribution to Peithinos is untenable. A glance at the two kylikes, that of Sosias and that of Peithinos, which stand side by side in the Berlin Museum (Nos. 2278, 2279), shows that the latter is as affected as the former is sincere, its line very weak in comparison. Peithinos' remarkably bad drawing of the hand alone (Fig. 1, *k*, *l*) would disprove the attribution. Hartwig's case for Sosias as painter is not based on style and is unconvincing, particularly as he instances as a parallel Brygos, who may never have painted a line. The little plate (Berlin 2315), also signed by Sosias, is insignificant, but the drawing is good and may quite well be by Euphronios too.

The very remarkable drawing of the eye on the interior and once on the exterior 

does not affect the question of authorship. It is an approach to accuracy, unique at this date, which Euphronios may have chanced on as well as another.

¹⁶ *A.Z.* 1882, Taf. 3. Inscriptions *eu . p* and *os*, the latter, to judge from the spacing, belonging to an isolated *καλος*.

¹⁷ Cf. Skiron in Duris' Theseus kylix (B.M. E 48), Kerkyon in Euphronios' Louvre kylix, Troilos in the Perugia kylix, Kaineus and a Lapith in a kelebe in the British Museum (E 473), etc. The reason for the convention lies in the difference of expression which this position imparts to the face. There is no attempt to render actual pain or fear (the face of Troilos in the Perugia kylix is a restoration. Spearing, *Childhood of Art*, note on p. 450), but the very rarity of the full face serves to focus the attention on it, and reserves to it, as it were, a character other than that of the normal profile.

in this position recalls that of the full-face hetaira in the Petrograd psykter, though differing from it slightly in shape. The type of head throughout resembles that in the works of Euphronios already discussed, and more especially in the Patroklos kylix, although a slight difference is apparent in the face profile. The nose is slightly heavier and projects more, in contrast with the straight line of nose and forehead in the foregoing works.¹⁸



FIG. 2.

a, b, from Petrograd psykter.

c, Maenad from kylix in Berlin, Inv. 3232.

d, Astyanax from Iliupersis fragments.

e, f, profiles from Iliupersis fragments.

g, Aphrodite from Sosias' kylix.

h, i, Amazons from kylix in British Museum, E 45.

It is however not of the type found in any of the vases bearing Euphronios' signature as potter. The hands and feet are for the most part unusually careless, but Euphronios' brush is betrayed in the beautiful drawing of the foot below the *Διὸς ἱέρον* of the interior.¹⁹ The style seems to point to a late work, probably the latest extant, of Euphronios' own painting.

¹⁸ See Fig. 2, e, f.

¹⁹ See Fig. 1, f.

The Arezzo Vase; Smikros and Euphronios.

To this category must be added a few unsigned vases, notably the famous Amazon krater at Arezzo.²⁰ The style of this work and the inscription *Ξενον καλος*²¹ place it unmistakably at the beginning of the 'strong' red-figure period. A second inscription, on which much discussion has been expended, immortalises the unique name of *Φιλλιαδες*. The style of this magnificent vase is so close to that of the works discussed above, that it would in all probability have been definitely assigned to Euphronios, and much controversy avoided, were it not for an amphora in the Louvre (G 107)²² so obviously connected with it that it cannot be excluded from the discussion. This vase has on one side the single figure of Herakles, on the other an Amazon. The figure of Herakles is almost exactly paralleled on the Arezzo krater, while the figure of the Amazon is identical in attitude with one on that work, even to the curious twist of the leg and the sole of the foot thereby revealed. The pattern on the neck is also the same as on the krater. The Louvre amphora is a clear case of borrowing, a very rare phenomenon in Greek vase-painting. There is no attempt at composition, and the figures are unmistakably taken straight from a good vase to beautify an inferior one. Apart from this it would be of little interest but for an inscription which seems to defy rational interpretation. It reads ΔΟΚΕΙ: ΣΜΙΚΟΙ: ΙΝΑΙ, and is commonly agreed to have some reference to the painter Smikros, a contemporary of Euphronios of whose work only two specimens are extant.²³ The question is set forth at length by Furtwängler,²⁴ and a brief recapitulation of the theories advanced will suffice here. The inscription may be rendered 'it looks like the work of Smikros' and interpreted as an acknowledgement of plagiarism, or 'it has the approval of Smikros' (understanding *εἶ*).²⁵ A third rendering, still less convincing, supposes a query: *δοκεῖ Σμίκροφ εἶναι*; 'What does Smikros think of it?' According to these interpretations, the Arezzo vase would be the work of Smikros,²⁶ the Louvre vase either that of a proud pupil or a confessed plagiarist. It is not necessary to suppose either. We may accept, *faute de mieux*, the rendering in which 'Smikros approves,' and suppose the inscription addressed by the author of both vases not to a rival or even a master, but (to give the Ceramicus its due) to a friend.

Whether or no because Smikros approved, the painter was sufficiently pleased with his Amazon to repeat or allow her to be repeated not once but three times. A second amphora in the Louvre (G 106) has on each side an Amazon of inferior workmanship but of exactly the same style.²⁷ This vase

²⁰ F.R. Taf. 61-2.

²¹ Xenon occurs on a psykter in the style of Phintias (Hauser in *Jahrb.* p. 108).

²² *Mon. Piot*, ix. Figs. 6 and 8.

²³ Stamnos in Brussels (*Mon. Piot*, ix. Pl. 2-3) and stamnos in B.M. (E 438).

²⁴ F.R. ii. p. 1 foll.

²⁵ So Gaspar, *Mon. Piot*, ix. p. 15.

²⁶ Furtwängler admits that it may be by Euphronios.

²⁷ See Pottier, *Louvre Cat.* p. 946, for this valuable addition to the discussion.

bears the simple inscription: *Εὐφρόνιος*. An instance of an isolated name denoting authorship is found in the workshop of Duris, where three kylikes (Klein's 10, 13 and 14) are inscribed with the name of Python on the foot. In the present case, whatever may be the exact significance of the name, it is a link between Euphronios and the Arezzo vase, confirming the evidence of the style.²⁸

The same, or nearly the same, Amazon is repeated yet again on a kylix apparently lost, but known to Braun.²⁹ Here the familiar figure is striding over a fallen comrade; but her attitude, again with a twist of the leg revealing the sole of the foot, is identical with that already described with reference to the figures on the Arezzo and Louvre vases. An inscription in the field gives the name of Euphronios' favourite Leagros.

To return then to the Arezzo Amazonomachia, the problematic inscription of the Louvre amphora is no argument against Euphronios. As to the style there can hardly be two opinions: there is no particular resemblance to that of Smikros as we know it, but there is the closest resemblance to that of Euphronios. Furtwängler pointed out, and M. Gaspar himself admitted, remarkable analogies with the Antaios krater and Geryon kylix. The elaborate lotus and palmette pattern on the neck of the Arezzo vase is identical with that on the neck of the Louvre amphora and below the subject on the Antaios krater. Another detail, serving together with the pattern as a kind of trade mark, is the curious quiver found on all three works. We may notice also that the eye is drawn in exactly the same way, half closed to express pain, in the two wounded combatants, Antaios and the fallen Amazon.

In the Geryon kylix we find no less remarkable parallels not only in the detail, (notably the similar treatment of the head and helmet, and of the musculature, the common shield devices),³⁰ but in the composition. The two Amazons striding forward and darting their spears at Herakles form a group almost identical with that of Herakles encountering Geryon. The fallen 'Kydoime' corresponds very nearly to Eurytion, and the attitude of Herakles is identical in the two scenes. The style is broader than that of the Geryon kylix, but exactly what we should imagine in a larger work of Euphronios, had no such work remained to us. As it is the more elaborate details (the eye-lashes, the embossed hair) which we find here, and which are not appropriate to the finer scale of a kylix, are all paralleled on Euphronios' largest signed vase, the Antaios krater.

Berlin Fragment (2181).

In this connexion may be noted a fragment of a stamnos in Berlin (2181, unpublished), representing two pairs of combatants. There is nothing

²⁸ This vase and the next may be the work of a copyist.

²⁹ Drawing in the *Apparat des Röm. Inst.*

reproduced by Klein, *Liebl.* p. 73, Fig. 13.

³⁰ Three out of six in each: the lion, the kantharos, and the gorgoneion.

to tell us who these represent, but that they are the male counterparts of the Arezzo Amazons a single sketch³¹ will suffice to show. There can be no doubt as to the Euphronian origin of the fragment.

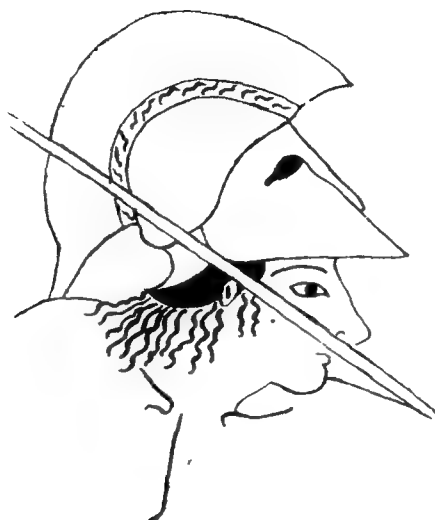


FIG. 3a, Warrior from stamnos fragment in Berlin, 2181.

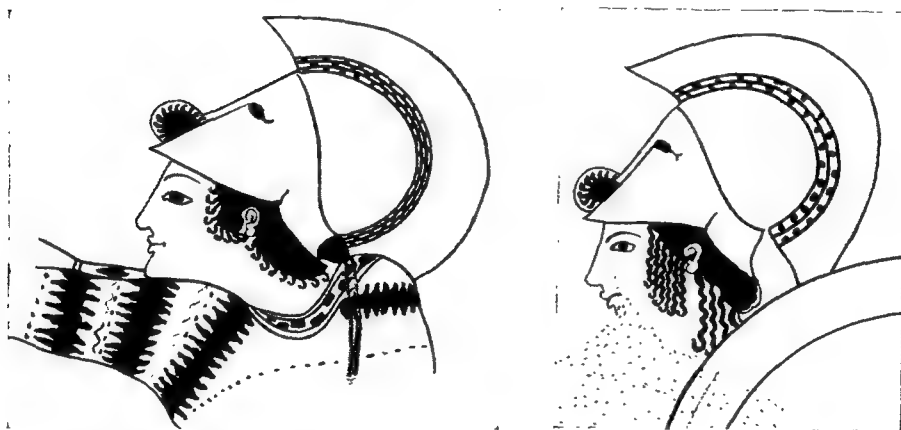


FIG. 3b, Amazons from Arezzo krater.

Other Attributions.

A few other unsigned works in the style of Euphronios may be briefly noted here. Of the various vases bearing the favourite's name Epidromos two at least belong to this category.³²

³¹ Fig. 3. I had intended to publish, by Dr. Zahn's permission, the whole fragment, but am prevented by the present circumstances.

³² That a vase bearing this name may date

from Euphronios' early days is proved by the conjunction on a kylix (*A.Z.* 1885, Taf. 19. 2) of the names Epidromos and Leagros.

Boston Kylix.

One of these, now in Boston,³³ was attributed to Euphronios by Hartwig. The interior represents two symposiasts, both seated, one vigorously fluting. The group is well composed, and the left hand figure, sitting with his legs drawn up, recalls the Patroklos of the Sosias kylix. The heads might well be by Euphronios, and the careful drawing of a frontal foot is quite in his style.³⁴

Berlin Kylix (Inv. 3232).

The second Epidromos kylix is one in Berlin (Inv. 3232, not in Furtwängler's Catalogue).³⁵ Of its three designs, the most interesting is that of a beautiful sleeping Maenad surprised by a Seilenos. The modelling of the nude figure with its curved contours and its few skilful interior lines recalls that of the Petrograd psykter; the Maenad's head closely resembles those of the hetairai.³⁶ The Herakles who, with a Seilenos, is making a sacrifice at an altar on the interior of the kylix, is the thrice familiar type of the Geryon scene. The second scene of the exterior, Herakles capturing Kerberos, is too much damaged for analysis. One fanciful touch, however, at once suggests Euphronios: the feet of Kerberos are armed, like the tail of the hound in the Geryon kylix, with snakes. The Berlin kylix is a charming work, and the sleeping Maenad a figure of exceptional beauty and worthy of Euphronios, to whom the kylix must doubtless be attributed.

B.M. Kylix E 45.

Another kylix rightly ascribed by Hartwig to Euphronios is the Amazon kylix in the British Museum (E 45).³⁷ The Amazons here are a slightly later variant on the Arezzo type, Herakles is the same as usual, and the head of Hippolyte bears the closest possible resemblance to one in the Iliupersis fragments. The B.M. kylix may indeed serve as a link between the Iliupersis and other works of Euphronios, if any doubt exists that the Iliupersis is of his own painting.

Berlin Fragment 2280.

Lastly let us note a fragment in Berlin (2280),³⁸ with two warriors engaging over a shield, of such excellent workmanship as to make us regret

³³ So Mr. Beazley tells me. Hartwig, *Meist.* Taf. 11.

³⁴ The reproduction is bad, but there are indications of more detail in the foot (as usual with Euphronios) than it actually shows.

³⁵ *Jahrb.* 1893, Taf. 2.

³⁶ See Fig. 2. Cf. also the thumb of the Seilenos with other hands by Euphronios, Fig.

1, *g.*

³⁷ Hartwig, *Meist.* Taf. 13. See Fig. 2, *h. i.* for drawings of heads.

³⁸ Hartwig, *Meist.* Taf. 24, 2, where it is attributed on very unsubstantial evidence to Peithinos. The hands again are sufficient disproof.

the loss of the kylix to which it belonged. The sureness of line and the care in the drawing of the hands³⁹ reveal Euphronios, and the breastplate with its scale and maeander pattern recalls that of Patroklos in the 'Sosias kylix.'

Summary of Euphronios' Style.

The foregoing works are ample ground for a survey of Euphronios' style as a painter. We have noted his strong sense of composition, the skilful adaptation of his designs to various shapes, above all the fineness of feeling which underlies his whole work. He has the virility of the older masters without their exaggeration; he lacks the freedom of the younger generation of cup-painters. Rapid movement he does not attempt, but his figures are not lacking in animation; they are carefully, often beautifully posed, but their pose is never affected or meaningless.

As a draughtsman Euphronios has a very marked style. His drawing is throughout careful and detailed, his line strong and fine. His face profiles are straight and clean cut.⁴⁰ A fine straight line predominates in the drapery. In his drawing of the human figure he pays far more attention to inner details than do his contemporaries or successors, most of all in the hands and feet; certain anatomical conventions are also constant.⁴¹

With this as a basis for comparison, let us turn to the vases signed *Εὐφρόνιος ἐποίησεν*.

EUPHRONIOS AS POTTER; THE PANAITIOS GROUP.

We have now come to the point at which Euphronios may be supposed to have set up his own factory. From this point onward the *ἔγραψεν* signature disappears, and with it the favourite's name, familiar to the early r.-f. masters, of Leagros. Of the four vases now to be discussed, two are inscribed with the name of Panaitios; certain unsigned vases, bearing the same name, are clearly to be associated with them. The works comprised in this group differ widely in merit, but not (with one exception) in style, and we may suppose, on the evidence of the common favourite's name, that they all date from a period covering not more than ten years. Certain features, it may be remarked in anticipation, occur constantly throughout the series: a particular type of young male figure, a very distinctive old man, certain characteristic attitudes. A partiality for back views is of importance, for the artist has a peculiar and constant method of drawing the human back. Earliest of the series is the signed Eurystheus kylix of the British Museum. Let us then examine this in some detail, as the crux of the authorship problem.

³⁹ Fig. 1, *h*, *i*.

⁴¹ Cf. Fig. 6.

⁴⁰ For the modification of his type see Fig. 2.

The Eurystheus Kylix.

The Eurystheus kylix (B.M. E 44)⁴² retains a certain archaism both of composition and detail. The grouping of the exterior resembles that of the Geryon kylix, the subject being continuous on the two sides, but arranged so as to form two distinct groups, one in lively motion, the other in repose. As in the Geryon kylix the combat of Herakles with the three-headed herdsman is balanced by the quiet group of slow, heavy oxen and the four warriors in repose who follow them, so here the hero's exploit with the boar is balanced by the chariot and four horses awaiting him under the guardianship of Hermes. The composition is, in spite of the resemblance, distinctly inferior to that of the Geryon kylix: the bent knees and back of the charioteer, only appropriate to driving at full gallop, are too obviously dictated by exigencies of space. So too is the bowed head of the old man behind Eurystheus, who should rather have been looking at the scene over which he is tearing his hair: and in spite of the pleasing device of making Hermes bend down to tickle the knee of the foremost horse with his caduceus, there is not room for his petasos, precariously balanced though it is on the front of his head. The main scheme of the composition is good, despite its shortcomings in details, and there is vigour as well as humour in the scene with the hero, the boar and the terrified Eurystheus,⁴³ and in the comic despair of the old man. The individual figures have not much grace or beauty, owing largely to their large heavy heads and the peculiarly clumsy profile,⁴⁴ and to the very full Ionic chiton and the bunched arrangement of the himation. The attempt at a full-face figure in the interior has resulted in a short and ungraceful one, and the foreshortened feet are extraordinarily ugly. The work altogether suggests an experiment of a young man in a style freer than that of the 'Leagros group'; an experiment which is not exactly successful, but shows a good deal of promise, amply fulfilled later in the Theseus kylix. The ugly foreshortening indicates inexperience; Euphronios had already used frontal figures and foreshortening with considerable success.

There are indeed affinities with the Euphronios of the previous group. The sturdy, muscular Herakles might have been, perhaps was, taken straight from a design of his.⁴⁵ The hetaira of the interior has affinities with Smikra and her companions, in points such as the drawing of the breasts, of the hair, the ear and ear-ring; but these considerations do not weigh against the difference of proportions, line and pose.

⁴² F.R. Taf. 23.

⁴³ Eurystheus in the *πίθος* is, of course, not new.

⁴⁴ Contrast especially the woman of the exterior with any by Euphronios.

⁴⁵ Herakles is the most stylised of all the gods and heroes. This broad, thick-set type continues to occur with great persistence throughout the whole 'strong' period, combined with figures of a quite different style.

The Theseus Kylix.

Most problematic of all the vases from Euphronios' workshop is the Theseus kylix in the Louvre (G 104),⁴⁶ a work of far greater artistic merit than that which we have just been considering. At the outset we are confronted by a remarkable difference of style between the paintings of the interior and exterior. The former has all the formality and all the charm of a work not quite free from the restrictions of archaism; the latter, vigorous and free, but lacking the charm, seems to belong to a later phase, at first sight even to a different hand.

The interior represents the visit of the young Theseus to Amphitrite under the guardianship of Athena. The hero, a slim long-haired boy, stands in front of the seated Amphitrite, his feet supported on the head and hands of a little Triton; three fishes indicate the sea. The style is a curious mixture of two elements. The fine straight lines, the rejection of too voluminous drapery, the straight, well-proportioned figures, take one back to Euphronios and the Geryon kylix, and seem to have no connexion with the sprawling style of the Eurystheus kylix. Analogies with the latter are however, not wanting. Eliminate for the moment the figure of the young Theseus, and there remains a group of two figures closely analogous, however superior, to that of the old man and hetaira in the Eurystheus kylix. The attitude of Athena, facing the spectator, with the head in profile and bent to look down at the seated Amphitrite, is that of the woman in the other scene, although Athena is tall and graceful, and the artist has not repeated the experiment of the foreshortened feet.

The same two elements can be distinguished in the detail as in the composition. The drawing of the leg muscles, the ear and ear-ring, are paralleled in Euphronios' signed paintings; the scale pattern of Athena's aegis is identical with that of Patroklos' breastplate on the 'Sosias kylix.' The type of head and face on the other hand is not so much a repetition of the previous type as a refinement on that of the Eurystheus kylix. The drawing of the Triton and the type of his head are quite unlike any on the interior, but are closely paralleled on the exterior. So is the brown hair of Amphitrite and Theseus with its delicately waved lines. The whole head of Amphitrite, of which the outline is revealed through her beautiful cockle-shell himation, is exactly like that of Theseus on the exterior.

In view of these considerations, one can hardly suppose the two sides of the cup to be the work of two artists. Of the interior we can only suppose a deliberate archaism, betrayed to some extent by the freedom of treatment of the little Triton, since the dating must be based on the more advanced portion of the work. The artist who had so far conquered technical difficulty as to be capable of the excellent drawing of the exterior must deliberately have sacrificed something of his newly acquired freedom, in order to treat a peaceful scene from his national mythology with a reverent reserve and

⁴⁶ F.R. Taf. 5.

dignity. We are surely justified in seeing in this choice the restraining influence of an older master, in fact of Euphronios himself, who, as head of a workshop, could claim at least to supervise the designs of the works which went forth in his name. M. Pottier,⁴⁷ indeed, while admitting the hand of another and younger painter, gives the credit of the subject, composition and preliminary sketch to Euphronios. This is hardly to allow for the individuality of the work, which it must be admitted is not in most respects the individuality of Euphronios; but, since restraint and austerity are not characteristic of the artist of the Eurystheus and other kylikes, there is little doubt that Euphronios fully exercised his right of supervision in this work, suggesting if not himself supplying a good deal of the detail. The result is one of the master-pieces not of one school, but of the whole ceramic art.

In the painting of the exterior⁴⁸ the younger school had evidently a free hand, nor does religious restraint play any part in these scenes, in which Theseus, grown from a slim boy to an athletic youth, is the hero of a series of earthly encounters. The whole composition is a fine essay in the new and freer style of which Duris was an exponent. As in Duris' Theseus kylix in the British Museum (E 48), the composition is continuous, there is no rigid division between one exploit and another. The full-face Kerkyon of the Louvre kylix invites comparison with Duris' Skiron. A certain affinity is apparent between the two vases, despite the widely different temperament and execution of the two artists, who one remembers are linked at least by the name of Panaitios, and must have been contemporary for some part at least of their respective careers. We are face to face here with something widely different from the style of the Geryon or Thetis scenes, or the gods in procession of the Patroklos kylix. M. Pottier draws attention⁴⁹ to one of the most essential characteristics of the work: 'On a cherché à éviter la symétrie par des enchevêtrements de jambes, par des additions d'accessoires, des vêtements, des armes, des arbrisseaux qui, en meublant les fonds, dissimulent la monotonie des attitudes semblables et la répartition en métopes réguliers.' Symmetry is one of the features on which the decorative schemes of the earlier vases largely depend; here the decorative feeling is preserved by means of a continuity of design. With Euphronios again, as with the forerunners of the strong style, the feeling is all for straight lines, in the grouping, individual figures, and drapery; here the principle of the design is a skilful handling of curves.

The draughtsmanship is excellent, the line very strong and vigorous, but, as in the interior, of a finer quality than elsewhere in the Panaitios group. The artist has here real scope for displaying his command of the human figure in difficult attitudes. The back view of Theseus⁵⁰ in vigorous motion is admirable, and has none of the appearance, which we shall see it is apt to have elsewhere in his work, of an irrelevant affectation. The full-face Kerkyon is treated with equal boldness and success.

⁴⁷ *Louvre Cat.* p. 935.

⁴⁸ Pl. IV. Photographs of the *Bibliothèque d'Art et d'Archéologie*, 196-7.

⁴⁹ *Cat.* p. 942.

⁵⁰ See Fig. 4.

One can only wonder that the artist of so admirable a work should have left us, among the vases which are closely related to it, none that approach it in conception or in fineness of workmanship. I have tried to indicate some reasons for believing it nevertheless to be by the same painter as the Eurystheus kylix. There are moreover certain unsigned vases, presently to be discussed, which form a close link between the two works.

The Dolon Fragments.

Of the signed vases, the Dolon fragments of the Cabinet des Médailles⁵¹ most resemble the Theseus kylix, in the fineness of the line, the use of colour, and the similar figure of Athena in each. The Dolon kylix was not a masterpiece like the Theseus, but the drawing is fine, the conception fresh and unstereotyped.

The New York Herakles Kylix.

Another signed work belonging to the same group and representing, like the above, heroic subjects, is the Herakles kylix in New York. On the interior the hero is walking at ease, armed with his club and bow, and followed by a little figure in a petasos; on the exterior are depicted two of his warlike exploits, 'the contest of Herakles and the sons of Eurytos,' and 'Herakles and some opponent, of whom too little is preserved for identification.'⁵² The delicate style of the work resembles that of the Theseus and Dolon kylikes; unusual care in the drawing of the muscles links it especially to the former. The Herakles is a refinement on the Herakles of the Eurystheus kylix; his opponent on the exterior recalls in face the hero and goddesses of the Theseus, and in figure the athletes on a series of cups to be discussed presently.

The Boston Komos Kylix.

We have next to consider the signed kylix in Boston, the style of which, differing from that of the others, makes its place in the series somewhat uncertain. It is closely connected with one unsigned kylix and less directly with two others, which have been reserved for discussion after the signed ones. All four represent genre scenes, in place of heroic adventures. The two last, in which the scenes are athletic, do not differ so widely from the heroic group as do the first, both of which represent scenes of revel.

The Boston kylix,⁵³ if it may be judged from Hartwig's illustration, is not particularly interesting. There are points of contact with other works

⁵¹ De Ridder, 525. Repr. in *Mon.* ii. Tav. 10, A.

⁵² *Bulletin of Metr. Mus.* vol. viii. No. 7, July, 1913; short notice and small photograph of the interior. My notes on the work are based on drawings by Mr. J. D. Beazley, to

whose kindness I owe my knowledge both of this cup and that belonging to Hauser, referred to below.

⁵³ *Cat.* 388. Repr. in Hartwig, *Meist. Taf.* 47-48. i.

of the group. The heads show some likeness to the incomplete head of Hermes in the Dolon fragments. One bald old man is like the old man of the Eurystheus kylix. The composition of the exterior is continuous in design, but the figures succeed each other at regular distances as in a widely-spaced frieze; there is no overlapping, no introduction of accessories to break the monotony. The Boston kylix is the second of the signed vases which bears the name of Panaitios. It has the further distinction of being the only vase from the workshop of Euphronios in which the spelling is seriously weak: *εποπιεσεν* for *εποιεσεν* and *οπ παις καλος*.

Kylix in Petrograd.

With the Boston kylix certainly belongs one in Petrograd, published and associated with it by Hartwig,⁵⁴ the man's figure in the interior of which is almost a replica of the man with a staff in the former. So also is the flute-case in the field. The subject and composition of the exterior are closely analogous to the Boston kylix, but of the two vases it is the Petrograd kylix which reveals most clearly its affinity with the rest of the group. Of the figures of the revellers, six are a study in the artist's favourite back view, in which the drawing is exactly the same as on the Theseus kylix.

The Athletic Group; Hauser's Kylix.

We have now to consider a whole group of athletic pictures, by the same hand as the foregoing. One, a cup in Hauser's possession in Rome,⁵⁵ unfortunately in bad condition, bears the name of Euphronios, and is of interest as proving that one at least of this rather peculiar series was made in his workshop.

Kylikes in Berlin and Munich.

Of the others two are closely connected with more than one of the signed works already discussed. They are a couple of small kylikes, one in Berlin,⁵⁶ the other in Munich.⁵⁷ On the interior of the former is an old man seated, examining an arrow, on the interior of the latter a youth crouching with a spear, a panther-skin over his arm and on his head a petasos. Both figures are so turned as to show the back; so is one of the youths of the exterior in the Berlin example. In each case the drawing is exactly like

⁵⁴ *Meist.* Taf. 48, ii.-49.

⁵⁵ This cup is not published, and I have not seen it, but Mr. Beazley, who has kindly given me particulars of it, tells me that the style is that of the Munich and Boston athlete cups described below, p. 126. The interior represents two youths, with athletic accessories, the

exterior athletes. A second word on the interior, faint and dubious, might be the expected *εποιεσεν*.

⁵⁶ Not in *Catalogue*. Inv. 3139. Hartwig, *Meist.* Taf. 46.

⁵⁷ 2639 <515>. Published by Meier, *A.Z.* 1885, Taf. 11.

that of Theseus' back in the Louvre kylix.⁵⁸ This feature alone is so distinctive as to be almost sufficient indication of authorship wherever it occurs.⁵⁹



FIG. 4.

a. from Euphronios' Theseus kylix.

b. from kylix in Berlin, Inv. 3139

c. from alabastron fragment in Würzburg.

Amongst other characteristics of the drawing, the spine is indicated, not by a single line, according to the usual convention, but by two lines, broadening

⁵⁸ See Fig. 4 for drawings from the Theseus and Berlin kylikes.

⁵⁹ As in a fragment in Würzburg, with the single figure of a diskobolos seen from the back. See Fig. 4.

between the shoulder-blades, and representing not the groove of the backbone itself, but the ridges of muscle on either side of it.

The interior of the Berlin kylix compares very closely with that of the Eurystheus kylix. It is the same old man who here sits alone, intent on his arrow, and, although the actual attitude is different, there is apparent in both cases the same desire for novelty and naturalism of pose. The Eurystheus is in this respect the better of the two; the other, though a clever study of a nearly possible attitude, has an appearance of affectation.

The exterior of the Berlin kylix represents groups of athletes and trainers. The study of a back is repeated in a more natural position in one of the youths. The type of profile varies from the clumsy type of the Eurystheus kylix to a finer and straighter one approaching that of the Theseus kylix. The hands and feet are rather careless, the fingers long and thin. It is noticeable that the Theseus kylix alone of this group has well-drawn hands and feet.

The interior of the Munich kylix is a study of the same nature as the Berlin one. The execution is not particularly good, but the figure is an attractive one. The profile is good, and belongs to the Theseus, not the Eurystheus type; the shape of the head is that found throughout this group.

The exterior represents once more athletic scenes, with the addition of horses and the familiar old man in the capacity of spectator. The composition, both here and in the similar scenes in Berlin, is indifferent, the lines thick and the execution generally careless.

Kylikes in Munich and Boston.

In Munich⁶⁰ also is a cup with scenes comprising in all ten athletes, training for various games. Athletic accessories⁶¹ strew the field, and help to give a certain amount of unity to the studies which compose the two subjects of the exterior. Three figures show the usual back view. More remarkable is the new study of the full face, which occurs four times; it is an effect rarely used in contemporary vase-painting, except in special circumstances.⁶² The whole cup is a good example of what one may call the artist's studio work. Connected with it is a Boston Panaitios cup⁶³ with a diskobolos on the inside, and six athletes on the outside. The diskobolos is characteristic. The most striking feature is the attractive study of a high jumper in mid-air.

In reviewing the whole group, we cannot but be struck by an extraordinary difference of quality between one work and another. The Theseus kylix is incomparably better in conception and execution than any other. Of the complete works the Eurystheus kylix ranks next to it; its faults are

⁶⁰ Published *A.Z.* 1878, Taf. 11.

⁶¹ Is the pick, which figures also on Hauser's cup, the *σκανάριον* of Theocritus, 4. 10, about the exact nature of which, beyond its connexion with *σκάπτω*, there seems to be no evi-

dence? Its use is, in any case, the same; it is, as the scholiast on the passage remarks, to keep the upper part of the body in training.

⁶² See note 17.

⁶³ Published *A.Z.* 1884, Taf. 16, ii.

those of inexperience and audacity, there is nothing either stereotyped or careless. The Dolon kylix must also have been among the artist's best works. The genre subjects seem to have been used entirely as studies, and lack interest. In the case of the Berlin and Munich examples, the single figures of the interior are interesting as such, but the poorly composed groups of the exterior fail to command attention.

The Panaitios Master: Summary.

It has been impossible not to anticipate the conclusion that the series of vases under discussion is the work of an anonymous collaborator of Euphronios, whom we must be content to call, in default of a better name, the Panaitios Master.⁶⁴ We have seen that the group does hold together, in spite of striking differences of style as well as of quality; that the two sides of the Theseus kylix are by the same hand, guided in the one case by a strong outside influence, in the other unrestrained; and that the Theseus and Eurystheus kylikes are linked by a series of vases uniting the characteristic features of both.

The theory of a first and second period, such as Hartwig makes out for Euphronios,⁶⁵ is in itself perfectly possible. Such a case can be made out for Duris, as for many of the Italian Renaissance painters; and nothing could be more plausible than the conjecture that Euphronios, having served his apprenticeship under Chachrylion and Euthymides, fell in the course of his long career under fresh influences or developed a style more really his own. But the Panaitios group stands quite apart: it reflects no outside influence that we can identify. Nor is its style either more or less individual than that of the group signed with *εὐφροῦς*; it is simply a different individuality. How different may be seen in a glance at the Eurystheus kylix. Although the main scheme of composition bears a good deal of resemblance to that of the Geryon kylix, the conception of the scene is utterly different; instead of a strong sense of formality, relieved by an exquisite care for detail, we see an almost impetuous attempt at freedom, to which the detail is relentlessly sacrificed. The Eurystheus kylix is conceived in a broader, one might say a coarser strain. With the revolution in handling corresponds a revolution in type. It is enough to compare the women of the Eurystheus kylix with those of the Antaios krater or the Thetis fragments: the heads, the drapery, the proportions are all different. Of the points of resemblance pointed out above, we can only suppose that the younger artist, working in close conjunction with Euphronios, adopted details from him, as Euphronios had adopted details from his seniors, Euthymides and Phintias. It is noticeable that these details tend to die out in the course of the painter's career: they are most apparent, after the Eurystheus kylix, in the interior of the Theseus, in which we found reason to see the direct supervision of Euphronios.

⁶⁴ So Furtwangler (F.R. i. p. 104), who, however, identified him later with Onesimos.

For discussion of this theory, see p. 135.

⁶⁵ *Meisterschalen*, 'Euphronios.'

The individuality of Euphronios' colleague is nowhere more apparent than in the Eurystheus kylix, the earliest of his works. It was, indeed, this kylix that first convinced Fürtwangler⁶⁶ of the existence of a second painter in Euphronios' workshop, and led him to retract his former statement that the Theseus kylix was the masterpiece of the painter Euphronios.⁶⁷ A masterpiece it is, but not all the credit even of the interior belongs to Euphronios; in the exterior he has no share. Rather it teaches us to rate more highly the nameless painter whose work is otherwise not of the highest rank.

EUPHRONIOS AS POTTER; THE LATEST WORKS.

The Troilos Kylix.

Among the features of the great epoch of cup-painting, the fully developed 'strong' r.-f. period, is the tendency, which has been often pointed out, to make of the kylix a dramatic whole, in which the two scenes of the exterior and that of the interior are as three episodes of a play. The Troilos kylix in Perugia,⁶⁸ from the workshop of Euphronios, is a perfect example of this dramatic treatment. The story begins on the exterior with the boy Troilos surprised by Achilles, is continued on the reverse by an arming scene, doubtless of the Trojans who are to give chase to the Greek hero, and ends on the interior with the murder of Troilos.

The dramatic composition, the focussing of the attention on the unhappy Troilos, give to the Perugia kylix a character different from any that we have considered hitherto;⁶⁹ but the difference extends further, to the type and disposition of the figures. The drawing of the two main scenes is of a fine quality; the groups composing them are conceived and executed with a strength that gives to the vase the interest that the story deserves. On the exterior Achilles is dragging Troilos towards the altar where he is presently to kill him, while Troilos' horses gallop away in terror. The comparatively tame scene of the reverse is relieved by varieties of type and pose, and the ingenuity which has made of these familiar arming warriors actors about to take part in a tragedy. Finest of all is the group of the interior, where Achilles, still grasping the boy by the hair, raises his sword to kill him.

The long-haired warrior, exemplified here in Achilles, is a popular figure at this time. Scenes from the Trojan War are much to the fore, and with them Homer's *καρηκομόωντες Ἀχαιοί*. But the Achilles of the Troilos kylix has parallels too close to be accounted for by the prevalence of a popular type. It is almost the same young warrior who figures on the interior of the Munich Centaur kylix⁷⁰ (2640 <368>), a work which bears such close analogies to the Troilos kylix that it has been universally ascribed to the same hand.

⁶⁶ F.R. i. p. 111.

⁶⁷ F.R. i. p. 27.

⁶⁸ Hartwig, *Meist.* Taf. 58 and 59 i.

⁶⁹ Except possibly the Dolon kylix.

⁷⁰ F.R. Taf. 86.

With it belongs a smaller kylix, also with scenes from a Centauromachia⁷¹ (Munich 2641 <363>). The composition in these two is of a different kind: it is continuous after the fashion of a frieze. Nothing could be further from the formality of Euphronios; movement, not pose, is the dominating idea.

Euphronios and Brygos.

Now the school of movement *par excellence* is that of Brygos, to whom therefore we may look for comparison with this vase. The result is startling: the whole style of composition, the types and poses of the several figures, the line in contour and detail, are those of the kylikes signed by the potter Brygos. Analogies also become apparent between the Brygan kylikes and the Troilos kylix, the widely spaced composition of which may denote either an early work or an experiment in a less crowded style. The young warrior, (the Achilles of the Troilos kylix, and the young Lapith of the Centaur kylix), is the Orsimes (*sic*) of the Louvre Iliupersis signed by Brygos (G 152).⁷² The same type of bearded warrior also occurs on all three. Lastly, of the interior of the smaller Centaur kylix, damaged as it is, enough is left to distinguish a 'Brygan' youth of another type, that which prevails in the Würzburg signed kylix.⁷³ He has short hair, bound with the favourite fillet. The painter of Brygos' vases is remarkable for variety. He never actually repeats himself, nor does he use, as Euphronios uses, particular details as trade-marks. In comparing his works one can therefore only notice resemblances of grouping, of type and of line in general: and these are a fairly safe indication. Versatile as he is, he is also one of the most individual of painters, and his types, though he has a far larger repertoire than most of his contemporaries, are easily recognisable. There is not a figure on the Troilos kylix that is not roughly paralleled in some one or more of his works.

This is not the place for detailed discussion of the workshop of Brygos, but it may perhaps be well, in speaking of the Troilos and Centaur kylikes, to add a few remarks on the vases that were further associated with them by Hartwig. Most striking is a kylix in Berlin (2295) with scenes of fighting on foot and on horseback. This Furtwängler in his catalogue associated naturally with 'Brygos'; Hartwig,⁷⁴ on the ground of its resemblance to the Troilos and Centaur kylikes, gave it to Onesimos, adding that Onesimos and 'Brygos' are often very similar in style. The kylix in question has indeed such close affinities with both groups that it can only be used as further proof of their common authorship. Nearly allied to it is the Edinburgh kylix published by Hartwig,⁷⁵ also under the head of Onesimos; the resemblance is so close as to need no analysis.

⁷¹ F.R. ii. pp. 133-5, Abb. 35-7.

⁷² See Fig. 5. For the whole Iliupersis, F.R. Pl. 25.

⁷³ F.R. Pl. 50.

H.S.—VOL. XXXV.

⁷⁴ *Meist.* Taf. 56, ii, and 57.

⁷⁵ *Meist.* Taf. 55 and 56, i. Cf. with both cups that in Oxford signed by Brygos. *J.H.S.* vol. xxxiv. Pl. 9.

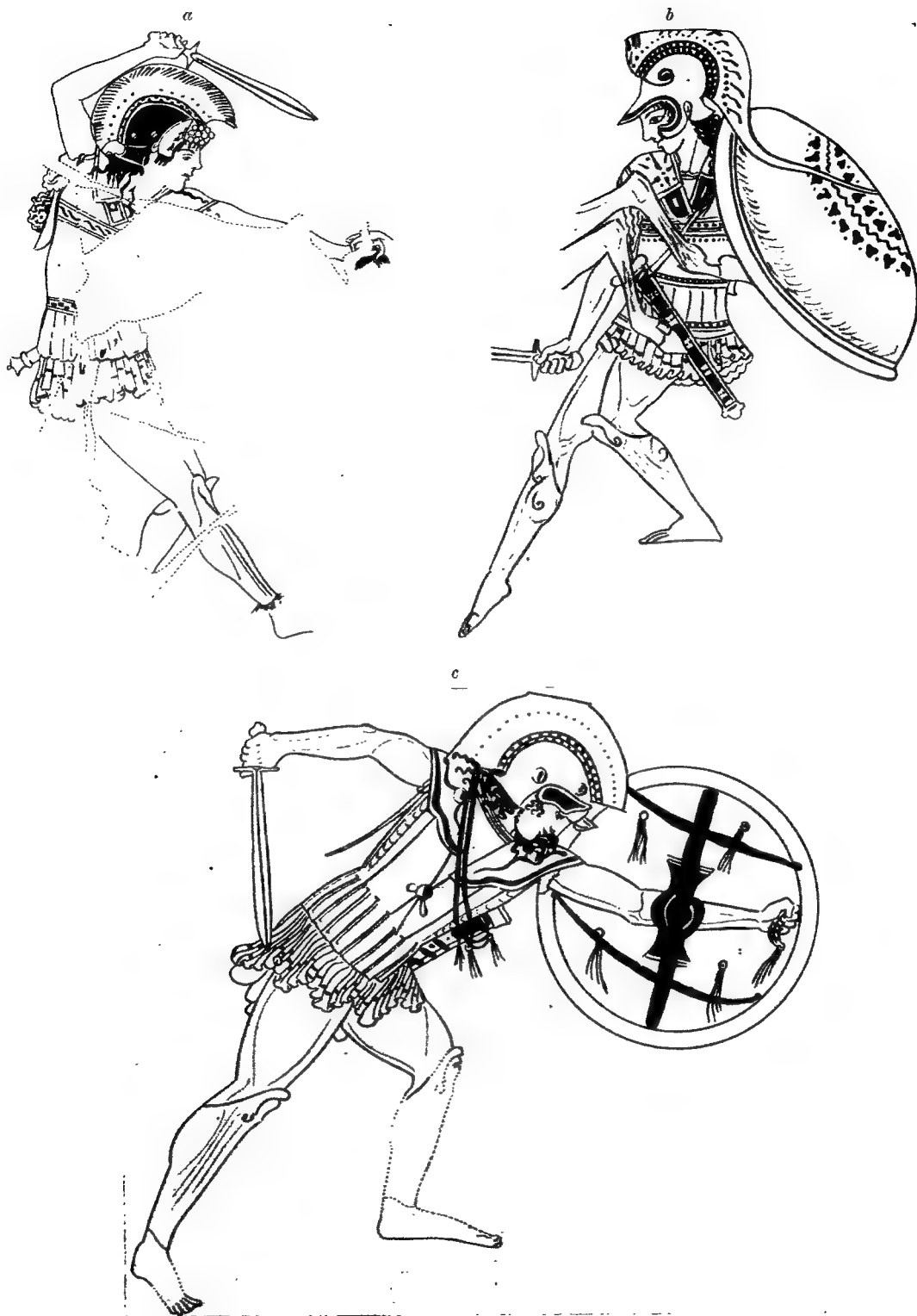


FIG. 5.

a, from Perugia Troilos kylix. *b*, from Munich Centaur kylix.
c from Brygos' Louvre Iliupersis kylix.

These five kylikes then, with a sixth to be discussed presently, must be added to the credit of Brygos' colleague. It is impossible to say whether any of them, with the exception of the Troilos kylix, were made in



FIG. 6.

Typical details (collar-bone, ankle) in style of:
a, Euphronios. *b*, Panaitios Master. *c*, painter of Brygos' vases (rarely as in *b*).

Euphronios' or Brygos' workshop. The Troilos is probably an early work, and we may conjecture that the artist's association with Euphronios preceded that with Brygos.

Onesimos.

In this connexion we have to examine the question of Onesimos, a painter first reconstructed by Hartwig, and since the subject of conjectures, which, if correct, would raise him to a position among the greatest ceramic artists. The theories concerning Onesimos are briefly as follows. Hartwig, while retaining the Panaitios group as representing the later style of Euphronios, attributed the Troilos kylix, the four kylikes just discussed in connexion with it, and certain others to Onesimos, on the ground of resemblances with the kylix in the Louvre bearing the fragmentary signature . . . *ιμος ἔγραψε*. Furtwängler, in what was, I believe, his last word on the subject,⁷⁶ attributed to the same artist not only the Troilos and two Centaur kylikes, but the whole of the Panaitios group, thus making him the painter of all the vases with the signature *Εὐφρόνιος ἐποίησεν*, with the exception of the Berlin polychrome kylix.⁷⁷ Pottier⁷⁸ finally attributed to the same Onesimos not the Panaitios group, but the Troilos and allied vases, together with the whole series of vases from the workshop of Brygos.

⁷⁶ F.R. ii. p. 134.

⁷⁷ This at least he does not mention, and I do not know of any theory of his relating to it.

In his *Catalogue*, ii. p. 566, he calls it simply the latest of Euphronios' signed works.

⁷⁸ *Louvre Cat.* p. 1004.

The Louvre Horsemen Kylix.

Before considering whether Onesimos can be promoted to this rank of importance, let us look in some detail at his signed work such as we know it. This unfortunately consists of but one kylix (Louvre, G 105),⁷⁹ and, it must be admitted, not a very striking one. On the interior is a youth on horseback, on the exterior a succession of similar figures, broken by one who is dismounted and attending to his horse. The figure of the interior is the descendant of the Leagros of the Geryon kylix, the exterior is the first of a series of similar groups, which continues well into the 'fine' period.⁸⁰ It is unfortunate, as far as comparison with other works goes, that Onesimos' one remaining vase should be entirely occupied by this monotonous type of cavalry. We cannot compare his figures with any of the more interesting types on the Troilos kylix or on any of Brygos' vases. There remain for comparison, however, besides the composition and general handling, the young half-armed warriors of the Troilos kylix and the horses.

The whole handling of Onesimos' kylix is curiously weak. The young horseman of the interior forms quite a pleasant centrepiece, after a familiar model; he is rightly at rest, his horse well reined in. The repetition, however, on the exterior of a whole series of similarly inactive horsemen, ('cavaliers courants' they really are not), is completely unimaginative. Nor are they purely decorative, as are the four stationary horsemen, posed with absolute symmetry, of the Castellani kylix.⁸¹ The same weakness or constraint is apparent in the individual figures. The horses are curiously solid and wooden, the riders very stiff. The type of youth, for all are practically the same, is a peculiar one; the head is disproportionately small, and has a straight back almost unparalleled in Greek vase-painting and rare in sculpture; the legs taper to small pointed feet.

For analogies with this work we naturally look to the Troilos kylix, which is united with it by the signature of Euphronios and the name of Lykos. Now the young Trojans arming in this work bear no resemblance to the horsemen of Onesimos. They are of a much more athletic type, and have none of the characteristics just described. Stress has been laid on the likeness of the horses in the two works, but examination shows this also to be doubtful. The horses of Onesimos are wooden; those of the Troilos kylix are perhaps fanciful rather than real, but they are alive. The build again is altogether different. Onesimos' horses are short in the back, thick in the hind quarters, and long in the shoulder in comparison with their height; their legs are tapering, like those of their riders: their heads are small, the eyes set far forward. Those of the Troilos kylix have long noses, the eyes further back, long backs, finer hind-quarters and stronger

⁷⁹ Hartwig, *Meist.* Taf. 53.

⁸⁰ Cf. the exterior of the Penthesileia kylix

(Munich 2688 <370>), F.R. Taf. 6.

⁸¹ See below.

legs, and are altogether better proportioned. The drawing is not unlike in details, otherwise the horses of the Onesimos kylix are much nearer to the sturdy little horse of the Geryon kylix.⁸²

This curious fact may be regarded purely as coincidence, and may serve as a warning against the basing of theories on chance resemblance, or it may go to confirm the influence of Euphronios on Onesimos which is to be expected from the conjunction of their names on the Louvre kylix. In point of fact, all the horses on Greek vases for a period of nearly forty years have a strong family likeness, but the variations on the general type are infinite. No two are the same, but details can be paralleled almost anywhere; the general handling is the only reliable indication.

M. Pottier instances, as a link between the Troilos kylix and that of Onesimos, the fragments of another Troilos kylix in the Louvre (G 154).⁸³ They are undoubtedly in the style of Brygos' colleague, and their equally obvious affinities with the Perugia kylix serve as additional proof that Brygos' colleague was also that of Euphronios. The comparison with Onesimos is, however, more dubious. Similar details in the drawing of the horses are there, to be taken for what they are worth, the same feature of columns in the background indicating a building, not in itself a very conclusive piece of evidence; but there the resemblance ends. The fragments have all the vigour which we commonly associate with the workshop of Brygos, and which contrasts strongly with the weakness of Onesimos' drawing. The men are all bearded, making individual comparison difficult, but we might expect analogies between the young Troilos and the riders of Onesimos. There is no comparison between them. Troilos, slight as he is, is firmly made and his legs do not taper; he is moreover riding, though on the verge of being dragged by his hair off his horse, while Onesimos' youths are simply sitting on their horses. M. Pottier admits a more archaic and conventional style, and concludes that the signed kylix is an early work of Onesimos. This it may be, but the name of Lykos binds it to the Troilos kylix, and the difference between them is too great. Still greater is the contrast of Onesimos' inanimate composition with the spirited drawing of the Louvre Iliupersis and the Munich Centauromachia. The constraint apparent in the former is not that of inexperience, but of inherent caution, the last quality that could be associated with the colleague of Brygos, whom I am therefore obliged to leave nameless.⁸⁴

⁸² M. Collignon notes the same thing in his discussion of another question (*Mon. Grecs*, ii. 14-16, p. 9): 'Le cheval peint par Onesimos a l'encolure large, la croupe pleine, le corps épais; la queue est sobrement dessinée à l'aide de quelques hachures; enfin la tête est courte et petite. Or vous retrouverez tous ces caractères

dans les vases d'Euphronios qu'on s'accorde à considérer comme les plus anciens, par exemple dans la coupe de Leagros.'

⁸³ *Mon. Piot*, xvi. Pl. 15-17.

⁸⁴ It is, of course, possible that Brygos was his own painter; but it is less confusing not to assume it.

The Castellani Kylix and Rhitsóna Skyphos.

Two other vases call for discussion in this connexion, the Castellani horsemen kylix,⁸⁵ which Hartwig attributes, plausibly at first sight, to Onesimos, and a skyphos recently discovered at Rhitsóna in Boeotia.⁸⁶ The Castellani kylix resembles Onesimos' kylix in subject and in some details of the composition. It is less animated than most of Brygos' work, and, in the narrower sense of the word, more decorative; that is, the decoration is more symmetrical. The drawing has not the stiffness, however, of Onesimos'. The same pillars are there, but for a distinct purpose, for the horses are tied to them. The only striking resemblance is that of costume: Onesimos' youth catching his horse is dressed like the Castellani horsemen, in cloak, skin-cap, and flap-boots. Now the cap and boots are

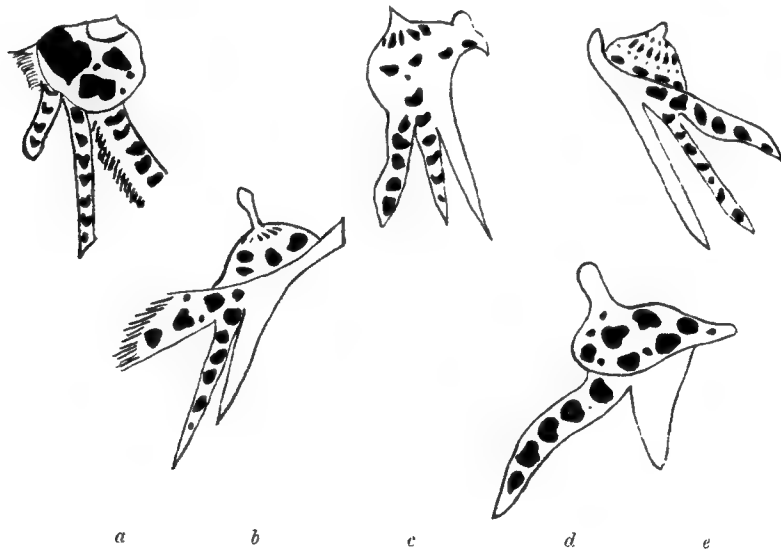


FIG. 7.

a, from Onesimos' kylix. *b*, *c*, from Castellani kylix. *d*, from Rhitsóna skyphos.
e, from kylix of the school of Euphronios (Hartwig, Pl. 14).

not of Greek origin, but were adopted, to judge from pictorial evidence, in Athens in the fifth century. The so-called *άλωπέκη* (the skin shown on the vases is certainly not fox, but something of the cat tribe) is part of the costume of Scythians, Amazons, archers, and *βάρβαροι* generally. Presumably the wealthier of the Athenian citizens, such as the cavalry of our kylikes, had their caps of the original skin, while the poorer made them of the more accessible fox-skin. The name *άλωπέκη* would thus become a generic name for caps of this shape. The cap seems to have come to Athens *viâ* Thrace,

⁸⁵ Hartwig, *Meist.* Taf. 54.

⁸⁶ *B.S.A.* xiv. Pl. 14.

for we find it on Thracians in vase-paintings; so probably the boots which Dionysos wears frequently, and the Seilenoi⁸⁷ occasionally. That both cap and boots were fashionable at Athens in the middle of the fifth century is shown by their occurrence in the Parthenon frieze; one slab from the west front in particular⁸⁸ gives us almost the plastic counterpart of the horseman on the interior of the Castellani kylix.

The costume in itself, then, can hardly be used as evidence. When we come to examine the drawing of the costume in the two kylikes, we find that even in this it is different, as a sketch of the caps will show.⁸⁹ The drawing of the Castellani kylix, in this as in other respects, is much nearer that of the Rhitsóna skyphos, and the skyphos bears a strong resemblance to other works of the 'Brygan' cycle.⁹⁰ Its resemblance to Onesimos' cup is more superficial. The youth with the skin cap and boots is full of life and potential movement; Onesimos' similarly equipped youth is, like all his figures, lacking in animation.

The Rhitsóna skyphos certainly belongs to Brygos' colleague. Among the points of resemblance to those works of his that have been discussed here may be noticed the shield device, paralleled on the Edinburgh kylix.



The Castellani kylix must be similarly assigned, although it stands somewhat alone in style. It is nearest to the Troilos kylix, and, like it, probably an early work. The most striking resemblance is in the youth who stands with his weight on one leg and the other leg crossed behind it, a pose which is closely paralleled on the Troilos kylix.

Onesimos and the Panaitios Group.

There remains Furtwängler's attribution to Onesimos of the Panaitios group.⁹¹ The kylix of Onesimos is in some ways not unlike the *genre* paintings of this series, but the resemblance is quite general. The characteristic types and poses of the Panaitios group are absent in Onesimos' kylix, and the type that Onesimos repeats so persistently has no parallel in the Panaitios group. Furtwängler of course relied on the Troilos kylix as a link in his proof, and the theory will not hold without it; but even if we dispense with Onesimos, the further question remains: was Furt-

⁸⁷ As on Boston 394 (Robinson's *Cat.*). Severe style. They occur, made of deer-skin, on one b.-f. amphora. Here it is the Dioscuri who wear them. Gerhard, *V. Etr.* D 2.

⁸⁸ Smith, Pl. 63.

⁸⁹ Fig. 7. I have added for comparison one which cannot be attributed to Onesimos under any circumstances.

⁹⁰ *B.S.A.* xiv. p. 302. Burrows and Ure, who also raise the Onesimos question with regard to it.

⁹¹ Curiously enough Furtwängler first realised the possibility that the Troilos kylix was by the same painter as the vases of Brygos (*Winck. Progr.* 50), but abandoned the idea in favour of the above theory.

wangler right in associating the Panaitios group with the Troilos and Centaur kylikes? If so, we should be faced with the necessity of attributing all this group also to the colleague of Brygos. The evidence, however, does not appear sufficiently strong to justify the association. There is, indeed, a marked resemblance between the horses of Troilos and those of the Eurystheus kylix, but I have tried to point out already that too much stress can be, and has been, laid on casual resemblances between horses. Further analogies are that of the bearded warriors of the Troilos kylix with the Iolaos of the Eurystheus, and of Troilos himself with the Theseus of the Louvre kylix. The head of the crouching youth (Munich 2639) again is not unlike a 'Brygan' type. None of these types are, however, exactly parallel in the two groups, and the use made of them is quite different. The painter of the Brygan group does not make use of studies, as does the painter of the Panaitios group, nor does he affect the groups and poses dear to the latter. The old men who figure in his work are more kindly handled, and the rather grotesque type of the Eurystheus kylix and others does not occur. Conversely the types which we associate with the workshop of Brygos are absent in the Panaitios series. The composition of the latter series is not so good as that of the former in genre scenes, in heroic scenes it is quite different. There is nothing of the 'dramatic' style about it, except perhaps in the Dolon kylix, which, as far as one can judge it in its fragmentary condition, was nearer in composition to the heroic scenes of the Brygan school. The masterpiece of the Panaitios series, the Theseus kylix, has no sort of parallel in the other groups. Altogether we should have to suppose a change more sudden and complete in the work of the Panaitios Master than is really possible, if we were to believe him to be the artist of the Troilos kylix and all that it involves. The change is nearly as complete as that from 'the early' to 'the later Euphronios,' the theory nearly as untenable.

The Berlin Polychrome Kylix; the Exterior.

So far, then, there have been three artists besides Euphronios engaged in his workshop. There is one more signed vase from this workshop, the polychrome kylix in Berlin (2282).⁹² Can this be assigned to any one of the foregoing painters? That it is the latest of the whole series there can be little doubt; apart from the new technique of the interior, the name of Glaukon and the advanced style of the exterior bring it down to a later date than any other.

Let us leave for a moment the question of the interior, which by reason of its technique falls into a somewhat different category, and examine the style of the exterior. The subject is a series of youths on horseback, like that of Onesimos' kylix, but with this difference at the outset, that both horses and riders are intensely alive and engaged in a race; one horse is

⁹² Hartwig, *Meist.* Taf. 51-2.

rearing, the others galloping, and the youths are riding in earnest. The vase is unfortunately both much damaged and much restored, but sufficient remains untouched to establish the style. The horses are not particularly like any in the preceding vases, the boys are of a new type. Most noticeable is the almost unique head, with the thick mass of hair flowing out behind. The eye is of a more advanced form than hitherto.

The whole style of the exterior is less constrained than that of Onesimos; nor does it resemble that of either of the remaining colleagues of Euphronios discussed above. It seems rather to anticipate a style common in the 'fine' period. The author, indeed, of a recent short history of vase-painting⁹³ attributes to the same painter a series of works⁹⁴ culminating in the exterior of the Penthesileia kylix in Munich (2688). This last is of a far more advanced style, even though it is not by the same hand as the interior; the development in a painter of the transitional period is however possible. Onesimos was not the painter of the Berlin kylix, but he may have set the fashion for friezes of horsemen to the so-called 'Pferdemeister' and others. To the last-named artist, then, belongs the exterior of Euphronios' last signed work; the interior calls for separate discussion.⁹⁵

The Interior.

The white-ground kylix paintings of this date fall into two groups, one in which the technique resembles more or less closely that of the white lekythoi, the other in which it is like that of red-figured vases. To the latter class belong the well-known Maenad of the Munich kylix (2643—332—)⁹⁶ attributed to 'Brygos' by Furtwängler, and a much damaged painting, supposed to represent Europa, in the British Museum (D 1); of the former the interior of Euphronios' kylix is a good example, with its beautiful fresco-like treatment. Hartwig believed Euphronios to be himself the painter of both sides of the kylix. The interior, indeed, is more compatible with his style than many of the Panaitios group which Hartwig also assigned to him, but the gap between this and the work signed with *ἐγγραφέν* is too great to confirm the supposition. The most marked difference between the interior of this kylix and any other of the whole Euphronian series is in the new type of head, which is best described as exactly like that of the Delphi charioteer.

Nearest to the Euphronian kylix are the fragments from the Acropolis with the death of Orpheus.⁹⁷ This is a later work; the eye is of nearly correct form, and a great advance on the Berlin kylix is apparent in the fall of the drapery over the Thracian woman's breast. The head of Orpheus, however, is parallel with that of the young man in that work, and the whole

⁹³ Buschor, *Griechische Vasenmaler*, pp. 179–180.

⁹⁴ Unfortunately not enumerated.

⁹⁵ See p. 153.

⁹⁶ F.R. Taf. 49.

⁹⁷ *J.H.S.* ix. Pl. 6.

technique is very similar. The Orpheus fragments may well be a later work of the artist who painted for Euphronios in his early days.

Summary.

Euphronios' colleagues, then, are five in number, each with a very distinct style of his own. Their respective characteristics may be briefly summarised here. The earliest by some few years is the Panaitios Master, a painter who stands half-way between the half archaic style of Euphronios himself and the fully emancipated strong style represented by the great cup-painters. We have seen the influence of Euphronios reflected here and there, notably in the interior of the Theseus kylix, but the bulk of the Panaitios Master's work is intensely individual. He is ambitious, careless, and variable, and lacks Euphronios' sure judgment. Of the paintings in which Euphronios plays no part, by far the best is the exterior of the Theseus kylix which, compared with much of his work, is as a picture compared with rather indifferent sketches. We have noted his partiality for back views and his distinctive drawing of the back, his favourite model of the ugly, bald old man, the careless outlining of hands and feet contrasting sharply with Euphronios' delicate drawing.

We cannot determine how great a part was played in Euphronios' workshop by the artist who is better known as the colleague of Brygos. Our only evidence of his collaboration with Euphronios is the Troilos kylix, which is, however, one of the most important of the series. His style is too well known to need analysis here: the fine draughtmanship, the delicate but free line, the animation of an exuberant personality. To the same period belongs Onesimos, whose cautious temperament and weaker line contrast him with the last-named painter.

Allied with Onesimos' kylix in subject is the exterior of the Berlin polychrome kylix, but the style is transitional between the advanced 'strong' and the 'fine,' and is perfectly distinct from that of Onesimos or any other. The curious head with its thick flowing hair has already been noted. The drawing is good, the scene animated. For want of a name the painter may be distinguished as the artist of the Berlin horsemen. Lastly we have his collaborator, the polychrome painter, a fine exponent of a technique which, it is curious to note, never attained to much popularity except in the case of the well-known lekythoi. The beautiful white-ground kylix-paintings remain the isolated experiment of a few artists. It is not surprising to find one of them in Euphronios' employ. As a painter Euphronios is intensely individual; as head of a firm, as the foregoing survey is intended to show, he is pre-eminently catholic.

EVELYN RADFORD.

TABLE OF VASES BY EUPHRONIOS AND HIS COLLEAGUES⁹⁸ DISCUSSED ABOVE.

Euphronios as painter :—

ἔγραψεν : { Louvre Antaios krater. (F.R. Taf. 92-3.)
Petrograd Hetairai psykter. (F.R. Taf. 63.)
Munich Geryon kylix. (F.R. Taf. 22.)
Acropolis Thetis fragments. (*Jahrb.* 1882, Taf. 2; and *Ath. Mitth.* 1883, p. 105.)

Determining word missing :—

Berlin Iliupersis fragments. (*Arch. Zeit.* 1882, Taf. 3.)

Attributed :—

Berlin Patroklos kylix, signed by Sosias as potter. (F.R.H. Taf. 123.)
 { Arezzo Amazon krater. (F.R. Taf. 61-2.)
 { Louvre amphora G 106. (*Mon. Piot.* ix. Figs. 6 and 8.)
 { Louvre amphora G 107. (Not published.)
 Amazon kylix (Klein, *Liebl.* p. 73, from drawing in Rom. Inst.)
 Berlin kylix, Inv. 3232. (*Jahrb.* 1893, Taf. 2.)
 Boston kylix. (Hartwig, *Meist.* Taf. 14.)
 B.M. kylix E 45. (Hartwig, *Meist.* Taf. 13.)
 Berlin stamnos fragment 2181. (Not published.)
 Berlin kylix fragment 2280. (Hartwig, *Meist.* Taf. 24. 2.)

The Panaitios Master :—

B.M. Eurystheus kylix. (F.R. Taf. 23.)
Bibl. Nat. Dolon fragments. (*Mon.* ii. Tav. 10 A; and *Arch. Zeit.* 1882, p. 47.)
Louvre Theseus kylix. (F.R. Taf. 5; and *Mon. Grecs.* i. Pl. 2.)
Boston komos kylix. (Hartwig, *Meist.* Taf. 47-48, i.)
New York Herakles kylix. (*Bulletin of Metr. Mus.* viii. 1913, No. 7.)
Athlete kylix in Rome. coll. Hauser. (Not published.)
 Petrograd komos kylix. (Hartwig, *Meist.* Taf. 48, ii.-49.)
 Berlin kylix, Inv. 3139. (Hartwig, *Meist.* Taf. 46.)
 Munich kylix 2639. (*Arch. Zeit.* 1885, Taf. 11.)
 Munich kylix. (*Arch. Zeit.* 1878, Taf. 11.)
 Boston kylix. (*Arch. Zeit.* 1884, Taf. 16. ii.)
 Würzburg alabastron fragment. (*J.H.S.* xxvii. 1907, Pl. 3.)

The painter of Brygos' vases :—

Perugia Troilos kylix. (Hartwig, *Meist.* Taf. 58 and 59, i.)
Munich Centaur kylix 2640. (F.R. Taf. 86.)
Munich small Centaur kylix 2641. (F.R. ii. pp. 153-5, Abb. 35-7.)
 Berlin battle kylix 2295. (Hartwig, *Meist.* Taf. 56, ii.)
 Edinburgh battle kylix. (Hartwig, *Meist.* Taf. 55 and 56, i.)
 Castellani horsemen kylix. (Hartwig, *Meist.* Taf. 54.)

<Ones>imos :—

Louvre horsemen kylix. G 105. (Hartwig, *Meist.* Taf. 53.)

The polychrome painter :—

Berlin polychrome kylix 2282. (Hartwig, *Meist.* Taf. 51.)

The Master of the Berlin horsemen :—

Exterior of foregoing. (Hartwig, *Meist.* Taf. 52.)

⁹⁸ The works signed by Euphronios are underlined.

NOTICES OF BOOKS.

Scythians and Greeks: a Survey of Ancient History and Archaeology on the North Coast of the Euxine from the Danube to the Caucasus. By E. H. MINNS, M.A. Large 4to, 720 pp., 9 Maps, 9 Plates, 351 Illustrations in the Text. Cambridge: at the University Press, 1913.

The appearance of Mr. Minns' work was a principal archaeological event in the year 1913, because, in a real sense, the author broke fresh ground. Other culture-areas of the Old World are laboured again and again; their literature is printed in familiar languages; progress is immediately and amply reported. But of the great region from the Carpathians to the Caucasus and beyond, this is only true in part; the antiquities from the Greek colonies on the Euxine littoral were known; the barbaric antiquities of the interior were neglected in the west of Europe. The enterprize of M. Salomon Reinach presented us in 1891 with a French version of Kondakov and Tolstoi's "*Antiquities of Southern Russia*"; M. Pharmakovsky's periodical notices in the *Archäologischer Anzeiger* were of the utmost value in drawing attention to new discoveries. But neither the book nor the reports claimed to be exhaustive. It remained true that until 1913 there was no comprehensive treatment of South Russian archaeology in a language generally understood by scholars. The need for such a work had been steadily increasing since 1889, when the Imperial Archaeological Commission of Petrograd ceased to publish its old *Compte rendu* in French and German, and issued its reports in Russian alone. An exceedingly fertile archaeological field was becoming veiled for us in a kind of mist at the very time when the prospect over other fields grew clearer. It was an anomalous and absurd position, to which the publication of "*Scythians and Greeks*" abruptly put an end. Mr. Minns has drawn upon the whole published material to date, with the result that his chapters contain the substance of works hitherto practically inaccessible. The ample bibliographies sufficiently prove how wide the foundations are upon which he has built this solid structure.

The subject of the book falls naturally into two main parts suggested by the title, and the order of their precedence indicates that our primary concern is rather with the barbaric than with the highly cultured people. This is not improperly the case, because Scythic art and its function as intermediary between Asia and Europe are still imperfectly understood; and though the full treatment of the Greek antiquities in the second half of the book leaves nothing to be desired, there is inevitably less novelty here than in the earlier pages. It is perhaps unnecessary for the general student to expect finality in any definition of the term Scythic which plays so prominent a part in every chapter. It is here taken to describe a population ranging over the great Eurasian zone of Steppes, and composed of two principal elements, the Iranian and the Turki, the former predominant in language, the latter in common life. For the archaeologist, the ethnological question, however important in itself, is subsidiary; for him the chief interest lies in a cultural uniformity in face of which anthropological distinctions have relatively small significance. The essential point is that we have here a single art,

determined by Steppe-conditions, ranging over an enormous area, from the confines of China to those of Hungary, and preserving an unmistakable identity from a period earlier than the sixth century B.C. down to late Roman times. At various periods it received intruding influences from higher civilizations in the South, which modified, without destroying, its individuality; in its decay, it transmitted westward styles and methods of ornament which ultimately affected the industrial art of barbaric Europe. Along a northern zone it thus fills the gap between China and Europe, as the art of ancient Turkestan fills it along the line of the central deserts. It was high time for its importance to be more fully recognized than has hitherto been the case in this country. In putting forward its claim to more serious notice, Mr. Minns has seized the psychological moment; for there has never been a period when European interest was so strongly directed towards the art of Asia as the present.

The early art of the Steppes is seen at its purest in the bronze antiquities discovered in the region of Minusinsk, in the basin of the upper Yenisei: here it seems to have first attained its individuality, and when it began to travel, its movement was from East to West, following the general trend of the nomadic peoples. The distinguishing mark of the developed style is the schematic treatment of animals and monsters in a characteristic manner, of which Mr. Minns' illustrations well render the peculiar convention. So far does schematization often go, that sometimes the animal type is almost lost in a series of curves; and the author suggests that the movement tends to proceed rather by the perception in the curves of animal possibilities than by a progressive degradation from natural forms. The point is arguable; but the evidence from ethnography somewhat favours the opposite conclusion, as does the testimony of the early Teutonic art of Europe (not unrelated, as we shall see, to that of Scythia), in which the original beast is resolved into a maze of sundered or contorted limbs only to be reconstructed by the trained eye of the specialist. This is not to say that here and there mere projections might not be changed to "beak-heads," or inanimate ornament animalized to please a lively fancy, but only that the main organic process was, more probably, one of degradation. The mention of early Teutonic ornament brings us to one of the most interesting points in relation to Scythic art, its connection with the art which the Goths and kindred tribes carried across Europe from the north of the Black Sea as far as England. That the Persian style of 'inlaid jewellery' was transmitted from Asia into the South East corner of Europe by the agency of the Scyths, is now generally admitted; they were in the right place at the right time, and provided with an art exactly suited to Teutonic inclination. Did they in like manner introduce the beast-ornament which forms the foundation of early Teutonic and Scandinavian art? Though the contrary opinion of Sophus Müller must command respect, an examination of various Scythic ornaments with conventional birds' heads and other zoomorphic features suggests that Mr. Minns has a strong case when he suggests that objects of this kind, closely allied in character to the barbaric art of Europe, and at the same time earlier in date, in all probability exerted a primary influence upon it. The question is one which deserves to be carried farther by comparative study upon an extensive scale.

Among the influences penetrating the Steppe, those of Mesopotamia and Iran were naturally conspicuous. The earliest inlaid jewellery which went north dates, as far as we know, from Achaemenian times. The gold armlets of the Oxus treasure in the British Museum are examples of the art which characterizes those discovered by de Morgan at Susa; the fine collar from Siberia, now in the Hermitage (p. 272), is of the same family; and all these objects attest the northerly transmission not only of technical methods, but of types such as the gryphon and lion originating in early Mesopotamian art. The influence continued during Sassanian times, passing round and across the Caspian, and is proved by the survival both of smaller objects and of such notable finds as the Petrossa treasure; of all those which affected Scythic art in Russia it was, perhaps, the most continuous. It began at a period even earlier than the oldest Persian dynasty; several objects from the Scythic area show motives of obvious Assyrian origin, of which the

Melgunov sheath (p. 171) is the most widely known. But it had a rival in vigorous influences from Ionia, and possibly from the Aegean: there are reasons which seem to favour the acceptance of M. Reinach's theory that the 'flying gallop' traversed the whole of Asia from the Mediterranean to China (p. 262). Like Persia, Ionia contributed much to the inspiration of Scythic fancy; the ivory ibex found during the British Museum excavations at Ephesus recalls in a striking manner a favourite Scythic convention in the treatment of recumbent animals (p. 260). The whole subject of the penetration of Inner Asia by various streams of culture during the first millennium B.C. is one of singular fascination and still sufficiently unexplored to attract research. Clues such as that furnished by the finds at Ephesus may well be multiplied, until the question of relative indebtedness between the different regions is finally decided. Ionia probably gave more than she received; yet it is not impossible that counter suggestions may sometimes have come southward and westward from the Steppes. There are artistic frontiers here which await precise delimitation.

The classical archaeologist will probably be attracted in the first instance by the second half of the volume, in which the history and art of the Greek colonies—Olbia, Chersonese, Theodosia, and the rest, are methodically described and fully illustrated (Ch. xi.–xix). Here, again, we have what amounts to a corpus of all discoveries to date, with references to the original sources. It is perhaps unnecessary to dwell upon these chapters in detail, because the more important objects, such as the Kul Oba vase (pp. 200, 287) and the Chertomlyk bow-case and sheath (pp. 285, 286) are already familiar to most; but it will be remembered that for certain branches of industrial art, joinery, textiles, decorative painting, and, above all, jewellery, the colonies of the Euxine have yielded results unrivalled in any other part of the Hellenic area. Sculpture and architecture are here of less significance, and ceramics are perhaps chiefly important from the light which they throw on the relations between the coasts of Scythia and other parts of the Greek world. Painting on a larger scale is represented by the designs on the coffin of the Kul Oba queen, the Stele of Apphe, and various wall-paintings decorating tombs and catacombs in the Taman peninsula and Kerch. The Greek material which Russia has yielded, and continues yearly to yield, is in every way remarkable, and gives rise to many points of interest especially concerning its relation to the art of the Scyths. There is, for instance, the varying intensity of its influence in this quarter. The Scyths continued to prefer Ionian types long after the matured art of Attica had superseded them in the cities of the Euxine, where home-fashions were always quickly followed. The cause of this deeply-established preference is probably to be sought in the fact that, geographically and emotionally, Ionian art was nearer to the early Scyths than was that of Athens; it was more congenial and intelligible to them than the developed figure-art of the fourth century. A second point has reference to the examples of Greek art deliberately adapted to barbarian use, either by employment on objects purely Scythic in type, such as bow-cases, swords and sheaths, or by the adoption of motives calculated to please a barbaric taste. The craftsmen were at pains not to fall too far below their best in the production of costly things made to the order of princes or chiefs; the above-mentioned Chertomlyk bow-case and sheath attest this for the mature style, while the Vettersfelde treasure (p. 236), first described by Furtwängler, may be taken in illustration of an earlier period. Such objects attest the pliancy and enterprise of the Greeks in discovering and retaining new markets; they did not always press their own types upon the barbarian, but often wisely condescended to his own.

Many sections of this veritable encyclopaedia of South Russian archaeology can only be indicated in the present place. The chapters on local geography, on nomadic life as known to ancient historian and modern traveller, on pre-Scythic remains, all contain matter of importance; the account of the so-called Tripolje culture, with its decorated ware and affinities to the ancient art of the Aegean, may be especially noticed. Attention may be drawn to Chapter XII., on representative Greek tombs;

to the treatment of the coinage, illustrated by numerous plates, and that of the Byzantine churches of Cherson; and to individual problems of varied interest continually raised and discussed. One such relates to the gold which was the characteristic material of Scythic art (pp. 7, 113, 269, 440, etc.); the full index will soon suggest others to the reader of archaeological experience. We may conclude this brief summary by a word as to the ample equipment of the book in illustration, comprising, in addition to process blocks from photographs or earlier engravings, many line-drawings and maps which we believe to be from the author's own hand. Though not a trained artist, he has been successful in giving much of the character of the objects, as we may judge by turning from his work to the exacter photographic reproductions present in no small number; this is what he set out to do, and his renderings sufficiently serve the purposes of preliminary study for which they are intended. The maps, both in the covers and within the volume, in some cases surprise the eye by the bold convention used for mountains; the meeting of the ranges about the Pamir, for instance, suggests at first sight an engagement between converging columns of great ants. But when they are more nearly examined, they will be found useful and efficient, containing the names of the tribes, cities and natural features which the student needs. Moreover, they are executed in a pleasant archaizing manner, with a feeling for style which gives them in some cases a decorative value of their own. Nos. IV. (*Scythia Quadrata*), V. (*Scythia ad mentem Herodoti*), and VI. (Ptolemy's *Serica*) have more than a touch of the quality which charms us in the work of map-makers in past centuries.

Probably no other Englishman but Mr. Minns possessed the varied accomplishments necessary to produce the work embodied in this volume: the union of scholarship and archaeological training with a knowledge of Russia and familiarity with her language is a rare combination in our country. The whole book bears testimony to the research required in the successful effort to cover so wide a range; the reader who penetrates far into this great storehouse of facts can well understand that their collection and presentation in a series of lucid chapters must have occupied years of the author's life. If the object of a scholar's labour is to advance learning, the sacrifice has not been made in vain. Many a student of antiquity, hitherto repelled by the imagined remoteness of the Russo-Siberian archaeological area, will feel that it has now been brought within convenient distance, and that communications have been opened up between provinces hitherto regarded far too much in isolation. The book has, indeed, the virtue of enlarging the view and setting familiar points in a perspective at once new and accurate, a merit which seldom fails, if all the work is scholarly, to carry with it admission into the first rank, and the prospect of being regarded a classic in its sphere. "Scythians and Greeks" has already become indispensable; and if the author will prepare for future editions by digesting the contents of new Russian books and monographs as they appear, it is likely to remain indefinitely without a rival.

Antichnaja Dekorativnaja Zhivopis' na Jûgè Rossii (Antique Decorative Painting in South Russia). By M. I. ROSTÓVTSEV. Folio, xviii + 537 pp. 98 Illustrations and full Index. Atlas of CXII. + I. Plates. St. Petersburg: Imperial Archaeological Commission, 1914.

The magnificent archaeological works published by the Russian Government in the 'fifties, 'sixties, and 'seventies of the last century, were part of the façade which Russia turned towards Europe. Their splendour of format and illustration was meant to be imposing, and the subject-matter was chosen with a view to heightening the effect: we have various objects selected for their beauty or brilliance, but to some extent divorced from their setting; the duller things were not published, and the reports of excavations were cut down almost to unintelligibility. The directors of excavations were conscious of this,

and chiefly set themselves to find what would be welcome at Petersburg: still they did keep fair journals, and made plans and drawings; our dissatisfaction with their meagreness or inaccuracy should be tempered by gratitude for what they did at a time when such work was not duly appreciated. It was just pigeon-holed, and remains in the Archives of the Archaeological Commission waiting the patience of the explorer.

In the hunt for 'museum specimens' people paid little attention to fading remains of tomb-painting, or if they did send some record of them up to Petersburg, the authorities there mostly disregarded them or published very indifferent reproductions. Exceptions were only made in the case of the Great Bliznitsa, the vault published by Stasov (*C.R.* 1872), that of Anthesterius (*C.R.* 1878), and in later times two numbers of *Materials* (vi. and xix.) by Professor Kulakovskij and one or two plates in the *Bulletin* of the Archaeological Commission.¹

It was by reviewing Kulakovskij that our author first had his attention called to the painted vaults of S. Russia as offering a series of decorations extending from early Hellenistic to Christian times, and supplementing what we know from other sites, and so helping to put Pompeii and Rome into their proper relation to the eastern part of the Hellenistic world. His article in the *Journal of the Ministry of Public Instruction*, St. Petersburg, May, 1906, did much to clear up the matter, and his study, *Hellenistico-Roman Architectural Landscape*, was in a closely allied field.²

In this book he has given us all possible pictures and descriptions of the remains of wall-painting from S. Russia. For this purpose he had all the chambers of which the situation could be recovered, reopened, sometimes more than once, and the paintings copied and compared with the older drawings. In other cases search has been unsuccessful, and he has reproduced older material mostly inaccessible up till now. Twenty-three of his plates are coloured, so the old magnificence of the Archaeological Commission continues, but in the service of a more scientific spirit. The list of plates is made out in French as well as Russian; it is a pity that a few pages of summary in French were not added—their absence is my excuse for the form of this notice. After the description of each chamber, illustrated by all necessary plans and sections, we have a discussion of the paintings, their style, their interpretation, and their date, with analogues in other parts of the ancient world; but the author promises a second volume in which these comparisons shall be more completely worked out. The positions of the tombs is shown upon excellent plans and views of Kerch (Pl. I.–III.) and Chersonese (Plan Pl. CII.).

To make these splendid plates more intelligible I give the dates to which Rostóvtsev inclines to assign the most important tombs, with a few words as to their paintings, their place in the development of the art, and their subjects. In the Great Bliznitsa (pp. 10–29, Pl. IV.–XI., late fourth century B.C.) we have very slight painting after the manner in which marble buildings were treated. Vasjurin Hill (pp. 30–69, Pl. XI. 2–XXIV., c. 300) shows the stage which precedes the first Pompeian style, comparable to one or two early houses at Delos, Magnesia, and Priene: there is a low plinth, orthostatae, 'Deckschicht,' main wall-space coloured a fine red, cornice, and in the free space of the ceiling, as it were, a carpet or awning suspended. The plans of these two barrows are specially welcome.

¹ Rostóvtsev gives a full bibliography of each tomb at the end of his notice of it; see also the notes in my *Scythians and Greeks*, pp. 307–321. I must apologize for making such a reference to my own work, but it is the only accessible account of the matter: it is largely based upon Rostóvtsev's article mentioned below, but now requires not only additions but substantial corrections; working necessarily at second-hand, I was led astray by my authorities, e.g. the chamber opened by MacPherson is the

same as that seen by Becker in 1852; the Eros on my p. 317, f. 227, owes his breeches to the draughtsman Gross: the chamber opened in 1908 is shown by a r.-f. pelice to date c. 300 B.C.; on my plan of Kerch, p. 562, f. 344, the Pygmy tomb should be just N. of the 'Sugar Loaf'; on p. 565, f. 345, Rooms V., VI., VII., are not part of the Roman Baths but of Hellenistic houses.

² *Trans. Russ. Arch. Soc. Class. Sect.* vi. 1908; re-issued in German, Leipzig, 1910.

In another tomb of about the same date, found at Kerch in 1908³ (pp. 70–82, Pl. XXVI., XXVII. 5, XXVIII.), the scheme of decoration was suggested by crude brick construction with horizontal beams in the wall: its frieze is remarkable for the garlands and aryballi represented as hanging against it.⁴ To the same period is referred a tomb at Anapa, of which the wall-painting imitates construction in marble blocks, with a good cornice (pp. 83–86, Pl. XXVII. 1, XXIX.–XXXI.). All these early tombs find their nearest analogues in Asia Minor or in Macedonia: Alexandrian examples, such as those published by Thiersch, stand further off, as do also the latest Etruscan vaults. It is a question whether they are not dated a little too early. After an excursus upon the numerous unpainted tomb-chambers built of solid blocks of stone and roofed at first with ‘Egyptian’ and later with true vaults, and upon their development in Hellenistic times (pp. 98–112, Pl. XXXII.–XXXVI., mostly Juž Oba and Anapa⁵), our author treats of fragments of painted plaster from houses excavated at Kerch in 1898 (pp. 113–130, Pl. XXXVII.–XLII., LI. 2–4). They may be put at about 200 B.C., being the closest analogues to houses at Delos, Priene, &c., also to the first style at Pompeii, but free of the Alexandrian influence that appears there: something of the same sort appears at Olbia (*v.* pp. 125 *sqq.*, 437). Other domestic fragments are in moulded stucco in the style of the IInd century A.D. (pp. 131–136, Pl. XLIII., XLIV.). To about the end of the second century B.C. belongs the Pygmy tomb (1832, pp. 137–149, Pl. XLV., LXXXII. 1, 2), dated by vases with inscriptions like those from Hadra, and to the first century B.C. that discovered in 1852 (pp. 153–160, Pl. XLVI., XLVII.) and reopened by MacPherson. They are the first examples in which figures are introduced into the lunettes left above the cornice by the slope of the roof. The walls are painted to represent solid blocks crowned by a cornice: in the top course the stones are treated as panels offering fields for decorative birds and sprays and metope-like contests of pygmies and cranes. So we come to an important group round about 1–50 A.D. in which these features continue: the vaults of Alcimus, son of Hegesippus; Anthesterius, son of Hegesippus—perhaps brothers—and 1891 (pp. 161–198, Pl. XLVIII.–LV.). It is noticeable that there is here a complete divergence from Pompeii and its ‘architectural’ style. Next, dated by its contents, comes Zaitsev’s vault (1895, pp. 199–226, Pl. LVI.–LXI.), very closely connected with the former three; but the blocks have disappeared, and in the ceiling a new element begins to come in, the floral style: garlands and sprays are a great feature, while leaves and petals are strewn over the backgrounds: in the fully developed floral style all symmetry of arrangement is lost, and the only architectural trace is a plinth and a degenerating cornice, *e.g.* vault 1873 (pp. 227–243, Pl. LXIII.–LXV.) of middle second century A.D., and Soracus (pp. 244–252, Pl. LXV. 4), late IInd century. As the published coloured pictures⁶ of this last are quite satisfactory, Rostóvtsev has not repeated them: but small line illustrations would have been a convenience to such as had them not at hand. The floral style Rostóvtsev regards as more particularly Eastern in origin, perhaps Syro-Palestinian, or even ultimately derived from the asymmetrical decorations at Tell-el-Amarna. He remarks on its analogy to the decoration of glass manufactured in those parts; of this he gives good examples on Pl. LIX. A. It is in strong contrast to the stiff architectonic or textile lines which were nearly always prevalent in Western Hellenism, *e.g.* Pompeii (pp. 217–223).

Parallel to the floral series runs one in which the decoration consists in an imitation of marble incrustation forming geometrical patterns. When real marble blocks came to be imitated by a marble veneer, the forms taken by the latter were freed from constructional necessities, and in its turn the painted stucco imitation of such veneer developed more complicated designs: its general application was to a wainscoting divided into panels by

³ Save where they have inscriptions tombs are referred to by the year of their discovery or else by the names of the ground-landlords or of the first describers.

⁴ Cf. Rostóvtsev, ‘A proposito di una tomba H.S.—VOL. XXXV.

dipinta di Canosa,’ *Neapolis*, i. fasc. i.

⁵ Cf. *Neapolis*, *loc. cit.*

⁶ J. A. Kulakovskij, *Materials for the Arch. of Russia* (published by the Arch. Comm.), xix.

Ionic columns, each panel having a scheme of rhombs and circles inscribed one within the other, all formed of contrasted marblings. This incrustation style hardly occurs alone, the second chamber of Feldstein's vault (1905, c. 100 A.D., pp. 260-271, Pl. LXVI.-LXX.) is the purest example of it, but there the first chamber has the old masonry imitation, the third apparently the familiar scheme of a hanging between pillars; in other examples classed under this heading either other elements were present (1902, p. 272, Pl. LXXI.) or very little was left (1884, p. 280, Pl. LXXII.).

Most of the vaults from the end of the first century on, Ashik's (pp. 346-375, Pl. LXXXVII.-XCI., the most elaborate of all, but for it we are still dependent on the old publication, here reproduced), and the painted sarcophagus that must be classed with it (1900, pp. 376-389, Pl. XCII.-XCV.), through the early part of the second century (1875, pp. 283-292, Pl. LXXXIII.-LXXXV.) to about the middle of it, Stasov's (1872, pp. 293-345, Pl. LXXXVI.-LXXXIV.) have the incrustated wainscoting, but above it reigns the floral style. The latest tolerable vault at Kerch, that of Soracus above mentioned, is purely floral, and this style seems logically the most advanced, but as between the two principles the question of succession in time does not come in, for the incrustation appears in the Christian vaults at Chersonese. The mutual relations of all these A.D. vaults are summed up on pp. 374-375.

The figure subjects, usually placed in the lunettes above the cornice, may be classified as decorative and religious, the latter including genre-scenes, mythological figures, and apotropaic subjects. The genre-scenes are really scenes from the life of the hero to whom the chamber is dedicated; the commonest is the so-called funeral feast, next come the hero on horseback setting out with his servant, and the hero's wife and children. These are also common upon the contemporary grave-stelae. Rostóvtsev points out that this peaceful scene gives place at the end of the first century A.D. to scenes of combat, and thinks this corresponds to a renewal of barbarian pressure upon the Bosphorans, due to the arrival of the Alans, but I rather doubt whether the Bosphorans ever had a really peaceful time. These scenes—of great importance for the costume and arms of the Bosphorans and their adversaries—are compared with reliefs from S. Russia, from Trajan's Column and the arch of Galerius at Thessalonica (pp. 326 *sqq.*, Pl. LXXXV., LXXXVI.). Rostóvtsev refuses to believe in the men in quilted mail riding side-saddle as shown in Ashik's drawings (Pl. LXXXVIII. 2). Other scenes are connected with the funeral ceremonies, such as the great processions in Ashik's vault, the musician in the same, and the musicians in the 1900 painted coffin, which has also the very interesting scene of a painter preparing the funeral portrait: this seems to be the only known representation of a painter using the encaustic process, it shews his colour box, spatula, portable brazier, and easel, with specimens of his work, framed and unframed, hanging on the wall (Pl. XCII. 1). The gladiators in Ashik's vault perhaps are present to commemorate games celebrated by the dead man, probably a king of Bosphorus and high priest of the Augusti.

The commonest religious scene is that of the rape of Persephone (Hegesippus, Zaitsev, Ashik: Pl. XLIX. 1, LVII., LXIV. 4, LXXXIX.). The representation in the first agrees with the Orphic hymns (p. 165); in the 1873 vault we have her return (Pl. LXIII.); in Zaitsev's a head labelled Demeter is painted upon the ceiling (Pl. LVII.), and perhaps this should decide us to call that in Alcimus (Pl. XLIX. 2) and even the Great Bliznitsa (Pl. VII. 2, VIII.) Demeter rather than Core; our author is rather inconsistent with regard to the latter. Elsewhere we have Hermes and Calypso (Zaitsev, Pl. LIX. 2, 3) or some other goddess of the underworld: naturally all the representations are chthonic, even Apollo and Artemis (1875, Pl. LXXXIII. 5). In the 1891 vault we have not so much Sarapis and Isis as the hero and his wife sacrificing to some such chthonic pair and in the act of becoming one with them (Pl. LII. 1, LIII. 1), and facing them Agathodaemon and Tyche (Pl. LIV. 1, 2). The whole cycle is regarded as going back to Ionic art through Anatolian Hellenism. The apotropaic element is chiefly noticeable in the later vaults, grotesque dancing pygmies, Gorgon heads, bellowing beasts, and the like.

Finally, a group of eight vaults (pp. 401-434, Pl. XCVII.-CI.), in which decoration has come down to the very simplest scheme of geometrical lines and figure-work is even worse, is put down to members of Sabaziastic societies perhaps in the third century. The connexion with Sabazius, mainly based upon the eagle on Pl. XCVII., or with the well-known Bosporean religious societies⁷ is not very obvious: the degradation is certainly far below that of the latest inscriptions from Tanais; but similar deterioration in coins in the third century might serve as a parallel.

At Olbia the only decorative painting is the Hellenistic house painting already spoken of and a pair of apotropaic figures in one tomb-vault (pp. 436-438). At Chersonese nine chambers with painting have been discovered, all with wainscoting in the incrustation style. One, of which only very unsatisfactory sketches are extant, is referred to the latest pagan period (pp. 442-448, Pl. CIII.); the others (pp. 449-507, Pl. CIV.-CXII.⁸) are all Christian in character, and Rostóvtsev would be inclined to see in them the tombs of the first missionary-martyrs of which Chersonian legend speaks. It is certainly curious that their style is the 'dry,' stiff style of Early Christian work in Syria and Palestine, quite unlike the 'juicy' character that Bosporean art received from Asia Minor, and that it is to Hermon, Bishop of Jerusalem, that the Chersonian Church traced its origin.⁹

As the dating of the tomb-vaults depends not less on the objects found in them than on the style of the paintings, Rostóvtsev has had occasion to discuss and figure various things which lie outside the range of his immediate subject; such are the pottery, stone tables, horse-gear, and chariot in Vasjurin's Hill (Pl. XVII.-XXIV.), the candelabrum, glass, and sarcophagus found in Zaitsev's vault (Pl. LX.-LXII.), with others that illustrate them; but he has refrained almost entirely (exceptions, Egyptian awning and tomb, Pl. XXV. and coffin, Pl. XLVIII. 2, and the reliefs, Pl. LXXXV., LXXXVI.) from illustrating non-Russian material in the hope that it will come into his second volume, which will evidently treat of ancient decorative painting as a whole, and link up the familiar styles of Rome and Pompeii with the remains in Africa and Egypt, Palestine and Syria, Asia Minor and S. Russia.

The drawings of Messrs. M. V. Pharmakovsky and M. I. Skubetov are so important a part of the book that they should have their share of praise; but this does not detract from the credit due to the author, whose patient energy and thoroughness, joined to complete mastery of all comparable material, are apparent throughout the book. Professor Rostóvtsev has given us a good example of how a series of monuments ought to be treated.

E. H. M.

The Nomads of the Balkans, an Account of Life and Customs among the Vlachs of Northern Pindus. By A. J. B. WACE, M.A., and M. S. THOMPSON, M.A. Pp. 332; 42 Illustrations and 2 Maps. London: Methuen & Co. 15s.

The title of this book hardly does it justice, for its three hundred and odd pages not only describe the life and manners of the Vlachs, but give also an account of the geographical distribution of their settlements, a sketch of the little that is known of their history with some very judicious remarks on the different theories of their origin, and an account of their language with a short grammar, a vocabulary, and texts and translations of some of their songs and folk-tales. The book was well worth writing. The essential Vlach leads a nomad life, spending the summer in his mountain village with his flocks and the

⁷ v. literature cited in *Scythians and Greeks*, pp. 620-625; also Cumont, *Rev. de l'instr. publ. de Belg.* (Suppl.) 1897; *Musée Belge*, 1910, pp. 55 sqq.

⁸ The lettering to Pl. CV. is wrong: 1 is the

ceiling of the 1853 tomb and 3 that of the 1909.

⁹ This is certainly an argument against Franko's rejection of this tradition, v. *Scythians and Greeks*, p. 531.

winter in some lowland town. In the mountains he remains himself, but in the towns he falls under Greek influence, gives up his nomad ways for a settled life, and soon becomes completely Hellenised. By this process, an inevitable result of political circumstances and of the fact that the nomad life does not suit modern conditions, the Vlachs are being gradually absorbed, and this description of their disappearing way of life by two sympathetic students will always be of value as a first-class source of information. To all who are interested in Balkan politics the account it gives of national propaganda work and its connexion with brigandage and the practice of burning the schools and houses of the opposite party is well worth careful thought.

The authors spent most of their time at the large village of Samarina, and have made the description of life there the centre of their book, treating the other villages more briefly. This description is well done; the close and full details of Vlach life, domestic, pastoral, and industrial, give a strong impress of reality to their work. They evidently know and like the Vlachs and their language, and their obvious pleasure in their subject makes the book very pleasant reading. Consisting as it does almost entirely of fresh, first-hand accounts of things seen and felt, it is really 'a book of good faith,' and the motto from a Vlach folk-tale put at the head of one of the chapters might have been used for the whole book: 'I knew a tale, I have told a tale, how well I do not know, but I have not deceived you.'

The chapter on the grammar probably suffers from compression. The present writer, however, who knows no Vlach or Roumanian, applied a practical test to it, and found it and the vocabulary sufficiently full to enable him to make a translation of one of the folk-tales given in Appendix IV. The student of Romance languages is likely to find a good deal new in it; for general linguistics and the question of the influence of one language on another, the remarks on the effect of Greek on Vlach phonetics are of especial interest. 'Our language is the most upside-down of all' is the way in which an old Vlach woman summed up the case.

A few small points may be noticed. It is risky work emending dialect texts collected by others, but in the Greek texts of the songs given in Appendix III., *σεά*, which occurs three times at the beginning of Song 3 on p. 278, and *κίοςσι*, *λίοςκ*, in line 5 of Song 7 on p. 279, look like slips for *στὰ* and *κίωσκι*, and *τὰ πινομένη*, on p. 282, Song 5, line 8, cannot possibly mean, as the translation on p. 163 runs, 'the wine is drunk,' but should surely be corrected to *ταπεινούμενα*, *humbly*, repeating the sense of *φρόνιμα*, so that the line will run, *κάτσι, Γιωργάκη, φρόνιμα, κάτσι ταπεινούμενα*, and construe, *Sit down, George, quietly, sit down humbly*.

The illustrations are from the authors' photographs; they really illustrate, and shew the Vlachs as a remarkably handsome people. Lastly there are two maps—one a general outline of the Balkans, to shew the distribution of the Vlach settlements, and the other a map of the Northern Pindus, most ingeniously shaded to shew the mountains in relief.

R. M. D.

The Principles of Greek Art. By PERCY GARDNER. Pp. xvii + 352, with 112 Illustrations. New York: the Macmillan Company, 1914.

Prof. Gardner's admirable *Grammar of Greek Art* was published by Messrs. Macmillan (London) and the Macmillan Co. (New York) in 1905. The present work, which is really a second edition of the one just mentioned, has the imprint as given above; the London firm only appears on the half-title. The change of title to a more high-sounding form is not connected, as might be supposed, with the apparent increase of trans-Atlantic influence. Prof. Gardner says the old title was misunderstood; but we liked it, and it suited the severe matter-of-fact style of the work, the *sicrum lumen* of his views, besides being a continual protest against the fact that the latest developments of modern art are *supra grammaticam*; whereas now all the writers on art are (or at least until the war

drowned their voices, were) declaiming about the principles of their particular -isms. However this may be, the book has been largely re-written, and two new chapters added, as well as a much-needed index. The author hopes that his book will help to counteract the danger that, owing to the decline of Greek studies, the immense value of the legacy of Hellas to the modern world will be underrated. It is to be feared that no amount of writing of books will counteract this tendency; but the consolatory fact remains that we have the legacy, and nothing can take it from us. If the world is ceasing to find new inspiration in Hellas, it is because it has, for the time at least, absorbed all that it can from that source. A new Renaissance may come and rediscover the old fountains.—Of the new chapters in the book, one deals with the House and the Tomb, the other with Portraiture. The latter is an excellent corrective to the glorification of Roman portraiture, which is to Greek as Florentine is to Venetian. The statement that ‘when a personage is represented on coins we are able with certainty to determine his features’ is surely a little too sweeping. Let Prof. Gardner take the heterogeneous series of ‘portraits’ on coins of Antiochus the Great and determine his features therefrom. Again, we hesitate to believe, in the sense that Prof. Gardner would have us, that ‘in looking at an early Greek portrait we discern first of all that the person represented is a Greek, next that he is a Dorian or an Athenian, then that he belongs to the class of poets, or statesmen, or philosophers; and only on a closer inspection one finds what belongs to the individual.’ This does not seem to be entirely true in the sense that the Greek artist was careful of the type rather than the individual, as most critics have supposed. If an Attic sculptor was representing a Dorian, or a Dorian Athenian, we fancy the critic working on Prof. Gardner’s lines would be rather at sea. And if Pericles had been represented without his helmet, should we have guessed him to be a strategos? As to Euripides, Prof. Gardner admits that we should naturally take him for a philosopher; but, since he was essentially a philosopher-poet, that is perhaps one to Prof. Gardner. The point, however, is that just as the greatest portrait-painters, Titian or Rembrandt, completely transmute the personages they portray, revealing them in an entirely new light—which the ordinary person, who prefers Moroni or Hals, calls telling us much more of the artist than of the sitter,—so the Greek portrait-sculptor, before the Hellenistic period at least, always expresses the individual in terms of his ideal. He attains a higher truth, a nobler expression, but it is not surprising that the general verdict is and always will be in favour of the Romans as portrait-sculptors.

Zeus. A Study in Ancient Religion. By A. B. Cook. Vol. I.: Zeus, God of the Bright Sky. Pp. xliii + 885. With many Plates and Illustrations in the Text. Cambridge University Press, 1914.

Various reviews of this work have already appeared, and in more than one we seem to have met with the remark that one cannot see Mr. Cook’s wood for his trees. That may be true; but it has to be remembered that one does not always want to see the wood rather than the trees. People who make it possible to do that so often leave out the most interesting or important trees from the point of view of the person who is studying arboriculture. Whereas Mr. Cook is careful to put in all the trees one can possibly want (and a few more, just to make sure), and leave the wood to emerge on the senses of itself in its own good time. Many of us prefer this method, having rooted distrust of any generalisations about the essential nature of Zeus or any other god, but being keenly interested in details which help to explain ancient life, or monuments, or literature. Thus whether Mr. Cook, in the 800 pages of his first volume, proves his general conclusions or not, let those who are competent to take in the universe at a glance decide. We have a shrewd suspicion that Mr. Cook himself does not care so very much about the conclusions, as long as he may wander at will in the ambagious paths that turn off from his high road; and we believe that for him, as for us, the means justify the end.

Otherwise, why should he spend seven or eight pages, mostly of small type, in piling up examples of the supersession of pagan by Christian cults in order to reinforce his theory of the replacing of Zeus by St. Elias? For the purposes of the argument these analogies could have been stated in half a page; but we are glad that Mr. Cook let himself go, and regard it as a sign of weakness on his part that at the end he pulls himself up with 'Confining our attention to the mountain-cults of Zeus.' A similar apology occurs after a page-long description of a vase with the defeat of Marsyas, where Zeus appears, though he has little to do with it. These words are an unworthy concession—*μαγειρικὰ ῥημάτια*.

So far as the accumulation of detailed information is concerned, the book is probably one of the most learned that have been produced by classical scholars since the seventeenth century. And its learning is distinguished by intelligence from the mere *Material-Sammlungen* with which the cult of the thesis in recent years has made us painfully familiar. Mr. Cook really tries, and generally with success, to take a fair view of the evidence. It is true that he occasionally blurs it; we do not like that plan of a labyrinth imposed on the 'theatral area' at Cnossus, although we are warned that it is a contamination. And he would not be human if he did not occasionally fail to see how weak his argument is. The 'labyrinth-pattern' (a term, by the way, which begs the question) which occurs accompanying the type on certain coins of Asia Minor may be, he thinks, not a graphic sign of the maeandering river, but an ancient religious symbol akin to that which represented the labyrinth of Cnossus. But he does not ask himself why, if that is so, it only occurs at cities situated on the river Maeander. Or take the objects which he regards as cult-objects of the inner sanctuary at Hierapolis. We can see, he says, how exact is the description given by the pseudo-Lucian: 'It has no shape of its own, but bears the form of the other deities.' Yet the object in the shrine between two seated deities is, as Mr. Cook sees, uncommonly like a Roman standard; and that, indeed is exactly what it is. Everybody knows that the Roman standards were placed in an *aedicula* in camp; and in a town they would be placed in the chief temple. At Carrhae two of them are represented in *aediculae* beside the baetyl of the moon deity, the god *Sm*, all in his temple. Again, to say that, because Theopompus describes beasts and men on Mount Lykaion as casting no shadow *ἐν φωτὶ τιθέμενα*, therefore there was a divine light on the summit, is to ask too much of the plain words.

It is very difficult to find any side-issue that has escaped Mr. Cook's eye, and has not been followed out in all its mazy ramifications; and he who thinks he has found such an omission generally discovers that the thing is lurking in some footnote. That is probably true of some of the small points now to be mentioned. In connexion with the globe of Zeus, what is the significance of the little globe sometimes placed at the point of imperial busts? Such a small globe is also placed at the point of the bust of the Zeus of Neapolis in Samaria. The type of the god seated on a globe was adopted by Christian art; and it would seem that we have a relic of this even as late as the ninth century, when Christ appears in a peculiar mandorla, with an upper elliptical part, and a lower one, circular, derived, it may be, from the globe (see the *Burlington Magazine*, vol. xxvi. p. 241). We hazard the suggestion that even the upper part of the mandorla is derived from the arched mantle of the sky-god. But the point wants working out. As regards Zeus in Gaza, Mr. Cook makes great play with the Yahu coin. But, taken in its place with all the other coins of the same class, it provides no evidence of the existence of the cult of that god in Gaza itself. The types do not appear to be local. But a local Gazaean Zeus whom Mr. Cook apparently omits to mention is Ἀλδήμιος ἢ Ἄλδος, the Ba'al of fruitfulness, about whom he will find a quotation after his own heart from Methodius in the *Etymologicum Magnum*. Mr. Cook is interesting on the mountain as the throne of Zeus; but while he makes use of the empty throne of Zeus at Olba, he apparently does not mention the very interesting throne at Diocaesarea, with a thunderbolt sitting on it, and little lions on its posts; not to speak of the filleted thunderbolt on a cushioned stool at Seleucia Pieria. Finally, as Mr. Cook likes to accumulate quotations, here is another for the sun as the eye of heaven, from the *Γρονναί* of Secundus: *Τί ἐστὶν ἥλιος: Οὐράνιος ὀφθαλμός κ τ.λ.*

This notice must not close without bearing witness once more to the deep impression which Mr. Cook's profound learning must make on everyone competent to judge. Two such books as this and Mr. Minns's *Scythians and Greeks*, issuing hard on each other, are indeed a triumph for the authors and for the Cambridge University Press.

G. F. H.

Essays and Studies presented to William Ridgeway on his Sixtieth Birthday. Edited by E. C. QUIGGIN. Cambridge University Press, 1913.

Of the 650 odd pages of this giant of *Festschriften*, some 280 are included in the section of Classics and Ancient Art; and from these must be deducted the two contributions dealing with affairs of Egypt and the winged monster which Sir Hercules Read would father upon the art of Bactria. The remainder of the book is divided between Mediaeval Literature and History and Anthropology and Comparative Religion; but in the latter of these two sections occurs much of interest to readers of this Journal, as, for example, Prof. Elliot Smith's lengthy derivation of megalithic culture and, more directly, the contributions of J. Rendel Harris on the cult of the Dioscuri in Byzantium and the neighbourhood, and of F. W. Hasluck on magical properties assigned in the Levant to coins of Constantine.

Tearing ourselves from the alien fascinations of canoe-building in the Torres Straits or kite-fishing in the Java seas, we briefly signal the various articles in the classical section. R. S. Conway (*The Structure of Aeneid VI.*) discusses the *raison d'être* of the episodes of Misenus, Palinurus, the Ivory Gates, and Marcellus. J. I. Beare (*The Order of the Platonic Dialogues*) suggests the development of the theory of feeling as a clue to dating. L. C. Purser (*Notes on Cicero, ad Atticum xi.*) gives textual emendations: blessed above all others is an editor of the *Epistolae*—where grammar fails, Cicero's matrimonial escapades pull him through. H. Browne (*Aristotle's Theory of Poetic Metre*) criticises *Poetica* i. 7-12. E. Harrison (*Δία Λίδων* and *Iovem Lapidem*) examines the evidence for the identity and meaning of the two phrases. A. S. F. Gow (*Elpis and Pandora in Hesiod's Works and Days*) dissects the legend; in the original story Pandora had no share in the jar. G. F. Hill (*Was it the Mint of Smyrna?*) publishes a hoard of worn coins and blanks, apparently the sweepings of a mint. A. W. Gomme (*The Ancient Name of Gla*) rejects Noack's identification as Arne, and maintains that the legend of Phlegya or Phlegyantia, as given by Pausanias, accords with the facts of excavation. J. T. Sheppard (*The Partheneion of Alkman*) translates and interprets vv. 36-101. J. E. Harrison (*Sophokles, Ichneutae ix. 1-7, and the δράμενον of Kyllene and the Satyrs*) discusses primitive underground dwelling-places and their survivals in ritual or drama. On similar lines F. M. Cornford (*The ἀραρχαὶ and the Eleusinian Mysteries*) discusses subterranean store-houses and derives ἀραρχαὶ from seed-corn. R. M. Dawkins (*A Re-cut Gem from Melos*) describes a lentoid stone with a Christian charm cut over a seventh century animal design. P. N. Ure (*An Early Black-figure Vase from Rhitsona in Boeotia*) publishes a vase with an interesting representation of the contest of cranes and pygmies; an illustration appears to have been omitted here. D. S. Robertson (*The Authenticity and Date of Lucian De Saltatione*) argues that the dialogue was written at Antioch between 162 and 165 A.D. E. M. W. Tillyard (*An Attic Lekythos from Sicily*) republishes from the Hope Collection a black-figure design of Heracles, Poseidon, and Hermes fishing. J. P. Mahaffy (*The Arithmetical Figures used by Greek Writers during the Classical Period*) makes three numerical emendations in Thucydides and one in Herodotus. O. C. Richmond (*The Temples of Divus Augustus and Apollo Palatinus on Roman Coins*) makes important re-identifications, which may be commended to the Roman Society. A. B. Cook (*Νεφελοκοκκυγία*) sees in the closing scene of the *Birds* a reflection of the cult of Hera at Argos. W. M. L. Hutchinson (*Two Notes on Nemeian II.*) explains ὕδατι ἐν Ἀσωπίῳ and emends the text. W. H. Duke (*Heracleides the Critic*) edits three fragments of the Περὶ τῶν ἐν τῇ Ἑλλάδι Πόλεων of this

writer, whom he places between 270 and 200 B.C. J. H. Moulton (*Notes on Iranian Ethnography*) treats of early race-migrations. R. C. Bosanquet (*Some Axes and a Spear*) suggests an Italic origin for certain early axe-heads from Achaia, and discusses antique spear-butts. Included in the Mediaeval section is a Byzantine inscription published by A. J. B. Wace. Finally mention must be made of the introductory Greek verses by Prof. Harrower and the *Versus Eupolidei* of Prof. Tyrrell.

Mélanges Holleaux: *Recueil de mémoires concernant l'antiquité grecque offert à Maurice Holleaux.* Paris: Auguste Picard, 1913.

This volume, the work of twenty-three pupils of the French School at Athens, was presented to M. Holleaux in commemoration of his period of office from 1904 to 1912 as Director of the School. During these years the excavations at Delos largely occupied the interests of the School, and naturally essays on Delian subjects form a large proportion of the contents of the volume. Space forbids more than a mention of the contributions of MM. Avezou, Picard, Courby, Plassart, and Gerhardt Poulsen dealing with questions of Delian topography or architecture; M. Plassart's certain identification of the Jewish Synagogue at Delos should, however, from the novelty of its subject, attract attention. M. Schulhof writes on the chronology of Delian archons, combating difficulties raised by a writer in this *Journal* in 1909, and M. Roussel collects inscriptions dealing with ritual observances in Delian cults. Of most general importance is the article of M. Vallois on 'Les Pinakes Déliens,' in which he collects from epigraphic sources a mass of information on pictures and wall-paintings of the Hellenistic age. While Delos is well represented, only one article deals with Delphi, that of M. Hatzfeld on 'Enslaved Italians in Greece.'

Of the remaining articles special attention may be drawn to those of M. Berchmans, who contributes a reasoned and conservative criticism of recent work on Scopas, and of M. Charles Picard, who publishes a bronze relief of the *πύρνια θηρῶν* from Colophon, and speculates on the probable Chaldean origin of the type; noteworthy is also M. Adolphe Reinach's account of Niceratos of Athens, the sculptor of the Pergamene school. M. Blum brings a black-figured vase from Gela to elucidate the problem of the sex of the draped figure mounting a chariot in the well-known relief from the Acropolis of Athens; M. Cavaignac suggests that ancient tribute lists may yield indications of population, &c. M. Dugas contributes a study of Eretrian vases, and M. F. Mayence publishes fragments of Attic *Loutrophoroi* which are, or were, in the University of Louvain. M. G. Nicole prints a new catalogue of works of art in Imperial Rome, and M. J. Paris a new collection of Rhodian amphora stamps. There are two epigraphic contributions: the last degree of the *Lagidae*, by M. Lefebvre, a decree of Cleopatra and Caesarion dated to 41 B.C.; and an inscription from Didyma, interpreted by M. Grégoire with reference to the Christian persecutions. M. G. Leroux discusses Syrian churches with side doors, M. Risom marble seats of honour in theatres or elsewhere. M. F. Poulsen publishes a bust of a priest of Isis in the Ny-Carlsberg Glyptothek; and last, M. Vollgraf brings forward the ritual practice of removing sandals in explanation of the relief from the balustrade of Athene Nike at Athens and of some figures from the east pediment of Olympia.

Aspects of Death in Art and Epigram. By F. PARKES WEBER. Pp. 461. with 126 Illustrations. London: Fisher Unwin and Bernard Quaritch, 1914.

This is the second edition in book form, much altered and enlarged, of a series of articles which appeared originally in the *Numismatic Chronicle* of 1909-10. It aims at being an essay on the mental attitudes towards the ideas of death prevalent from Greek and

Roman times to the present day, and on the various ways in which those ideas have affected daily life, as illustrated by epigram or minor works of art. The work is divided into four parts, of which the introduction deals with the general philosophic or religious conceptions of death from classic to modern times. The second part tabulates the various aspects under which death, or ideas connected with death, have been viewed, illustrating them largely from folk-lore, epigram, or general literature. The third part is numismatic in interest, collecting and classifying coins and medals of all periods which have been suggested by the various mental attitudes of the preceding section. The fourth part is similar to the third in arrangement, but is devoted to products of the minor arts generally, Greek or Roman pottery, gems, finger-rings of all periods, &c. The writer in his preface disclaims any thought of exhaustiveness in his treatment of this iconography or of the literary evidence; but he has brought together a mass of material often quaint and strange, and what is rarer in a work of this kind, has known how to weld the whole into a very charming and readable book.

Les monuments archéologiques de la Galicie. I.—*La colonie industrielle de Koszyłowce de l'Époque énéolithique.* Album des Fouilles. PAR C. HADACZEK. Léopol, n. d.

THERE is a topical interest attaching to this album of aeneolithic antiquities, published as it is by a Lvoff (Lemberg) professor and the Cracow Academy of Sciences; and the text accompanying the thirty-three plates consists of a résumé in French, and description of the plates in German and Polish. The site is in the Galician administrative district of Zaleszczyki on the Dniester near Bessarabia, and has been excavated for five years by the author. The culture was treated by Kaindl two years after its discovery in 1906 (*Jahrbuch für Altertumskunde*, vol. ii. (1908), p. 144, not p. 44 as stated), but his conclusions are here revised in the light of further discoveries. It is now believed to have been an industrial centre, not a group of thatched cottages; and the finds include painted pottery and the kilns in which it was fired, terracotta statuettes or idols of both sexes, besides loom-weights and a few small objects of bronze, the date being at the latest about 1200 B.C. The statuettes are evidently allied to those commonly found in south-eastern Europe and the eastern Mediterranean area, but the leading feature is a mass of pottery fragments divided into three groups: (i) hand-made vessels of grey clay mixed with sand, the decoration confined to incised lines: some with flat bases, others deeper and provided with four feet. (ii) Pale orange pottery of remarkable quality, with rich decoration in one or more colours, principally black, red and white, in various shades: forms in great variety, including birds and animals' heads. Animal forms also appear in colour, together with scrolls and geometrical patterns of many kinds; and the human figure is sometimes represented. (iii) Fragments of good quality with designs in intaglio. The statuettes also fall into three main groups: (i) like a Herm, the upper part of the body carefully executed and set on a circular pedestal: (ii) torso with bird's head on a conical pedestal, which below takes the form of a human foot; and (iii) a flat torso set on a pair of straight round legs with the feet joined. This neolithic civilisation shews many resemblances to that of Thessaly, which is somewhat earlier than that of the Dniester and Dnieper basins, but evidently belongs to the same group; and its last or aeneolithic phase ended at a time when central Europe was experiencing invasions no doubt connected with the Dorian descent on Greece. Many close parallels may be noticed in Fiala's sumptuous volumes on the Bosnian neolithic station of Butmir, where the beautifully tinted plates give a vivid idea of the various wares. In the present volume the photographic plates are exceptionally clear, but there is no excuse for printing the text on paper still more shiny than that used for the plates.

R. A. S.

Βιτζέντζου Κορνάρου Ἐρωτόκριτος. Ἐκδόσις κριτικὴ γενομένη ἐπὶ τῇ βάσει τῶν πρώτων πηγῶν. μετ' εἰσαγωγῆς, σημειώσεων καὶ γλωσσαρίου. ὑπὸ Στεφάνου Ἀ. Ξανθοῦδιδου, ἐφόρου ἀρχαιοτήτων ἐν Κρήτῃ. Ἡ ἐπισυνάπτονται πραγματεία τοῦ καθηγητοῦ τῆς γλωσσολογίας Γεωργίου Ν. Χατζιδάκι περὶ τῆς γλώσσης καὶ γραμματικῆς τοῦ Ἐρωτοκρίτου καὶ ὀκτὼ φωτοτυπικοὶ πίνακες ἐκ τοῦ χειρογράφου. Ἐκ τοῦ τυπογραφείου Στυλ. Μ. Ἀλεξίου, ἐν Ἡρακλείῳ Κρήτης, 1915. Pp. clxxxx + 784. Price 15 drakhmai.

It is somewhat remarkable that so important a national poem as *Erotokritos*, which has enjoyed a wide circulation for more than two hundred years, should have had to wait so long for a scholarly edition. This want has now been definitely filled by Doctor Xanthoudides, who has given us a critical text, equipped with an introduction of nearly two hundred pages on the date, sources, and history of the poem, with notes, and lastly with a very full glossary. To all this Professor Hatzidakis has added a chapter on the East Cretan dialect in which the poem is composed. With these helps it is now possible with a fair knowledge of modern Greek to read *Erotokritos* without much difficulty. The list of misprints should have included a number of non-Greek words in the introduction.

The editor has based his text on the British Museum MS. of 1710 and the first edition, which was printed at Venice in 1713. The second edition is a reprint of the first, and the innumerable later editions shew a steady deterioration of the text, largely due to efforts to make the dialect more easily intelligible. The Venetian edition, however, preserves the Cretan peculiarities, the printer having fortunately employed a Cretan editor. The same good fortune accompanies the present edition, for Doctor Xanthoudides has the advantage of being a Cretan, and, though not from Siteia, the home of Kornaros, at least from as far east as the region of Dikte. The poem is thus written in his mother tongue, and it is not too much to say that only a Cretan could have given us such an edition. In numberless cases his knowledge of the dialect has enabled him to restore the true text or to select the correct reading in a way impossible for anyone but a born Cretan. The linguistic peculiarities of the poem, its regular use of rhyme, and the fact that it was carried in MS. by Cretan refugees to the Ionian islands and not printed until 1713, lead him to date it to the seventeenth century, and earlier, though not much earlier, than the taking of Candia by the Turks in 1669.

The poem is a narrative in the style of the romances of chivalry of the loves of the knight *Erotokritos* and the fair daughter of his feudal lord *Herakles*, the king of Athens. The editor points out that in its close connexion with Greek popular poetry and its Frankish subject it is a characteristic product of *φραγκοκρατούμενη Ἑλλάς*. The borrowings from *Ariosto* are particularly interesting.

Of the literary value of *Erotokritos* it is not easy for a foreigner to speak. In Greece it has the genuine popularity of a poem which represents the feelings and heart of the people, and this intensely national character is probably a bar to the foreign reader, who is only too likely, when confronted with its 10,000 and odd lines, its long-winded speeches, and absence of literary distinction, to agree with the severe verdict of Leake, that very few people would have the patience to read even one of its five books. However that may be, *Erotokritos* must always have the no small glory of being the national poem of Crete, and as such is well worthy of the pious care which a Cretan scholar has now devoted to the production of this monumental edition. The glossary alone makes the book indispensable to all serious students of popular Greek.

R. M. D.

Ein athenisches Gesetz über die eleusinische *Aparche*. VON ANTON ELTER. (Programm der rheinischen Friedrich-Wilhelms-Universität). Pp. 28. Bonn: Marcus und Weber, 1914. 1 M.

The subject of this pamphlet is a mutilated Attic inscription discovered in 1908 on the site of the ancient Athenian Agora, published first in *Arch. Eph.* 1910, 1 ff., and subsequently in Michel's *Recueil*, No. 1459, and in *I.G.* ii.-iii. ed. min. No. 140. This

the writer subjects to a careful examination, in the course of which he takes occasion to discuss afresh the epigraphical evidence for the Athenian *νομοθεσία* of the fourth century B.C., (8 ff.), the publication of the laws sanctioned by the *νομοθέται* (16 ff.), the regulations regarding the levy of the *ἀπαρχή* for the Eleusinian-deities and its employment (40 ff.), and ends by offering us a restoration of the text (54) which is certainly a considerable improvement upon that of previous editors. If we accept this as correct, the inscription records a law modifying that of Chaeremonides: the essence of the change lies in the fact that from 352 B.C. onwards the responsibility for the offering of the *ἀπαρχή* at the Eleusinian sanctuary was transferred to the *βουλή*, which in this matter was to be represented by ten elected *ἱεροποιοὶ ἐν βουλῇς* (34 ff.). The importance of the study of Attic legislation and the paucity of the epigraphical materials sufficiently justify this long and detailed discussion of the most recently discovered of those sources, and the care with which the task has been carried out renders this work a valuable contribution to Athenian history, alike constitutional and religious.

Les Civilisations préhelléniques dans le Bassin de la Mer Égée.
2^{me} édition revue et augmentée. RENÉ DUSSAUD. Pp. 418; XIV Pl. : 325 Figs.
Paris: Geuthner, 1914.

M. Dussaud has done well in bringing out comparatively soon a second edition, revised and augmented, of his *Civilisations préhelléniques*. The size of the book is very much increased, and the number of illustrations also. War has dealt hardly with work on these subjects, and there are few of us now who have the time either to read completely or to review satisfactorily a book of this size; and to appreciate M. Dussaud's work fully the time and leisure are necessary which will only return with the piping times of peace. Nevertheless a necessarily hurried perusal shews that M. Dussaud has now given his book a completeness which the first edition lacked in some respects, and it can be recommended as the fullest existing description of the pre-Hellenic civilization of Greece. The whole range of this civilization is described, and the author goes outside the Aegean basin, strictly so-called, to include in his work a description of the early culture and art of Cyprus, and adds to it an estimate of Aegean influence in Egypt and Syria. The addition of coloured plates enhances the value of his work considerably, and the new maps are a great improvement on those of the first edition. All the latest results of excavation, such as the American discoveries in Crete and the German at Tiryns, are included in the book, which fully justifies its title as a description of the whole early culture of the lands which afterwards were Greek, not only the strictly "Aegean" culture which arose in Crete and the islands and eventually dominated the Greek lands, but also the originally distinct civilizations of Troy, of Northern Greece, and of Cyprus. We are glad to say that the book possesses an index, which is, however, perhaps rather curt and jejune in its references. So many French books, however, have no index that its presence here is something for which we are grateful.

H. H.

The Excavations at Babylon. By ROBERT KOLDEWEY. Translated by AGNES S. JOHNS. Pp. xix + 335, with 255 Illustrations and Plans. London: Macmillan and Co., 1914.

This work is the English edition of Koldewey's 'Das wieder erstehende Babylon,' published in 1913 with the object of giving a survey of the excavations at Babylon, which up to that time had been conducted without interruption, but with very little publication of results, for over fourteen years. The same arrangement is followed in the English as in the German edition, the book being broken up into a series of numbered

sections of varying length, each devoted to a particular mound or area of the site. The information thus furnished is often of considerable interest to the archaeologist, and, though no attempt was made to present the material in a popular or attractive style, the book has let in a good deal of welcome light upon what has been accomplished at Babylon during these long years of work, and upon what still remains to be done there. In justice to the translator it should be said that Mrs. Johns has evidently spared no pains in her rendering of a rather obscure German text into clear and intelligible English, while the publishers have left nothing to be desired in the matter of print and binding.

To the classical historian and archaeologist the main interest of the book undoubtedly lies in the attempt to reconcile the actual remains of the city with the classical tradition of its magnificence. How, for example are we to explain the puzzling discrepancy between the present position of the outer walls and the enormous estimate of the city's area given by Herodotus, or even that which we find in Ctesias? For Herodotus appears to have visited Babylon; and Ctesias was the physician of Artaxerxes Mnemon who has left a memorial of his presence there in a marble building upon the Kasr, or Citadel Mound.

Koldewey is inclined to regard their figures as not in themselves impossible, and he compares the Great Wall of China which he points out is just about twenty-nine times as long as Herodotus' estimate for the wall of Babylon. But the latter was not simply a frontier-fortification. It was an enclosing wall of a city, and a more apposite comparison is that of the walls of Nanking, which, as Professor Haverfield has pointed out in his 'Ancient Town Planning,' is the largest city-site in China and the work of an empire even greater than Babylon. Although the area to the west of the Euphrates has not yet been examined, Koldewey assumes that the city, in the Neo-Babylonian and Achaemenian periods, occupied an equal area upon that side of the river. But, even so, its complete circuit would not have extended for more than about eleven miles, a figure very far short of any of those given by Herodotus, Ctesias, and other writers. Koldewey suggests that, as Ctesias' estimate approximates to four times the correct measurement, he may have mistaken the figure which applied to the whole circumference for the measure of one side only of the square. But that would still leave the larger figure of Herodotus unexplained, and it seems preferable to regard all such estimates of size, not as based on accurate measurements, but merely as representing an impression of grandeur produced on the mind of their recorder, whether by a visit to the city itself or by reports of its magnificence at second hand. Moreover there are substantial reasons, strategic and otherwise, for placing but a small proportion of the city upon the right bank of the Euphrates at any period of its history. It is true that the text of Herodotus may be quoted in support of the contrary view, but that difficulty the excavations have now cleared up. The Euphrates changed its course, temporarily, during the Persian period, and for a time flowed round to the east of the main citadel; it returned to its old and present bed probably in the third century B.C.

Space will only permit of reference to one other problem presented by the volume—the proposed identification of a subterranean vaulted building on the Citadel Mound with the famous Hanging Gardens of the city. the *κρεμαστὸς παράδεισος* of Berossus, the *κρεμαστὸς κήπος* of Ctesias and Strabo, the *pensiles horti* of Curtius Rufus. There are two main reasons which suggested the identification. The first is that hewn stone was used in its construction, as is attested by the numerous broken fragments discovered among its ruins. There is only one other place on the whole site of Babylon where hewn stone is used in bulk for building purposes, and that is the northern wall of the Citadel; and in all the literature referring to Babylon stone is only recorded to have been used for buildings in two places,—the north wall of the Citadel and in the Hanging Gardens, a lower layer in the latter's roofing, below the layer of earth, being described as made of stone. The second reason is the discovery, in one of the surrounding chambers, of a triple well, which can best be explained as forming the well-shafts for a hydraulic machine constructed on the principle of a chain pump, the central shaft

acting as an inspection-chamber down which an engineer could descend to clean out the well or to remove any obstruction. The motive power was probably supplied by a couple of heavy hand-winchs worked by gangs of slaves.

The finding of the well certainly strengthens the case for identification, which involves, however, many difficulties. Whatever scheme of reconstruction we adopt for the upper structure of the building, it is clear that the subterranean vaults can only have been used as stores or magazines, since they were entirely without light. And here a rather interesting piece of evidence comes in, the significance of which appears to have escaped Dr. Koldewey. In the chamber at the head of the only stairway leading to the vaults was found a large number of tablets, and, since the inscriptions upon them relate to grain, we must assume that at least some of the vaults were used as granaries. But this is a use to which they could only have been put if the space above them was not a garden, watered continuously by an irrigation-pump, as moisture would have been bound to reach the vaults. This objection seems to me to outweigh the correspondence in details, which, in spite of differences in measurements, has been ingeniously drawn by the author between the architectural structure of his vaulted building and the texts of Curtius Rufus and Diodorus.

But, granting all Dr. Koldewey's assumptions, it would have to be confessed that the Hanging Gardens have not justified their reputation. And if they merely formed a garden-court, as he inclines to believe, it is difficult to explain the adjectives *κρεμαστός* and *pensilis*. For the subterranean vaults would have been completely out of sight, and, even when known to be below the pavement level, were not such as to excite wonder or to suggest the idea of suspension in the air. One cannot help suspecting that the vaulted building may really, after all, be nothing more than the palace-granary, and the triple well one of the main water-supplies for domestic use. We may, at least for the present, be permitted to hope that a more convincing site for the gardens will be found in the Central Citadel after further excavation.

L. W. K.

Catalogue des Antiquités égyptiennes recueillies dans les Fouilles de Koptos, 1910-11. Par ADOLPHE REINACH. Pp. 132. Bertrand : Châlon-sur-Saône, 1913.

M. Adolphe Reinach has published the majority of the antiquities found by him at Koptos in the form of an illustrated catalogue of them as they are exhibited in the Musée Guimet at Lyon. The arrangement seems to follow no logical plan, as objects of all ages are placed in juxtaposition, and in the catalogue, while the rooms and cases are taken in order, the order of the numbers is not always followed and various numbers are omitted from the description. The catalogue therefore is not a scientific one, but is a sort of mixture of catalogue, popular guide, and ordinary publication. The result is unsatisfactory.

Of the objects described none are of first importance save one, a fine sculptured temple-wall of the XIIth Dynasty. But this, it is stated in the description, was much damaged by the native workmen who were employed to cut off the backs of the blocks, and in transport. One cannot help thinking that it would have been wise to have imported some Italian or Greek workmen from Alexandria or Cairo to do work which natives would be sure to do badly.

There is a great number of fragments of sculpture and other objects of the Graeco-Roman period, none of them, it must be said, of much interest. The Pharaonic objects are all of usual types, except one, the head and torso of a sistrum-bearing priestess of the XVIIIth Dynasty.

Aus dem griechischen Schulwesen. Von E. ZIEBARTH. 2^{te} Auflage. Teubner : Leipzig, 1914.

In the second edition of this useful survey of Greek educational organisation Dr. Ziebarth has incorporated references to the material which has been provided by fresh publications during the five years which have elapsed since the book first appeared. There is sufficient of this new material to increase the bulk of the work by about a sixth : the chief part of the additions is to be found in the fourth chapter, which deals with the relics of the schools which have survived in the form of buildings, lists and records, exercises, and so forth. The summary is practically complete, so far as we have tested it : a few references to papyri or ostraca might be added, but they are not of special importance. If this very clean and well articulated skeleton were clothed with a little flesh of imagination, we might have an attractive as well as accurate presentment of Greek education.

The Eastern Libyans. An Essay by ORIC BATES, F.R.G.S. Pp. xxii + 298, 12 plates and 100 figures in text. London : Macmillan and Co., 1914. 42s. net.

'The Eastern Libyans' appears to be a *magnum opus* : it is a vast book in external appearance, but when we look at its type we see that it is not so tremendous a work as it seems. The printing is very fine to see, but it is surely unnecessary to produce a book of this kind in this large *format* and in type apparently intended for the use of a myopic generation. The expense of the book must have been materially increased thereby, one would think, and needlessly so. An 'Essay' costing forty-two shillings is expensive.

After this initial grumble at an expensive expansiveness which is hard on the student, we may proceed to examine the book itself. The author says in his preface that 'this essay [as he will insist on calling it] both suffers and derives advantages from the fact that it has been written in the field. The disadvantages of being often cut off from all libraries are too obvious to be dwelt upon : I am much to be blamed, however, if there do not appear in the following pages some traces of the opportunities of which, by being in the Levant, I have been able to avail myself.' That the author has travelled and worked in the Levant (chiefly in Nubia) we know, and the effect of autopsy can easily be seen in his pages. This gives the book much of its value. But how he managed to write it 'in the field' without taking a pretty extensive travelling library about with him we do not know. The references are innumerable. As a book written 'in the field' the 'essay' is a *tour de force*.

And it is written rather in the style of a *tour de force*. There is a great deal of dogmatism in it of the 'learned juvenile' kind, reminding us of a German doctorate-thesis. As, we notice, another reviewer has remarked elsewhere, in dealing with the megalithic monuments of Libya Mr. Bates treats a much disputed theory as if it were generally accepted. How, too, can the great broadsword of the Shardana (of which the first actual example known has lately been published by Mr. Hall), be called 'South European' ? It is of a type entirely foreign to Southern Europe, and indicates that the Shardana, whether they lived in Sardinia or not at any time, originally came from the North into the Mediterranean area. In the chapters on the Libyan language and Libyan religion we are continually being told what was so, without much regard to the very shadowy character of the evidence. Why, too, is the account of Cambyses' expedition against the Oracle of Ammon 'probably apocryphal' ? It bears every mark of historical truth. And to tell us that the other Herodotean story of the war of the Psylli against the wind is 'certainly apocryphal' argues a certain want of humour in our instructor. Mr. Bates would agree with us, we are sure, in the serious conclusion that the story of Jack the Giant Killer is also 'certainly apocryphal.'

The most valuable thing about all this purely Libyan part of the book seems to be its collection of references. The matter with regard to which Mr. Bates is most informing is that of the relations of the Libyans with Egypt. Here his Egyptological knowledge makes his conclusions worthy of careful attention, and his account of the results of Nubian excavations, in which he himself took part, is very interesting. We imagine, however, that his identification of the Nubian 'C-Group' people as Libyans is not likely to be accepted without question.

The illustrations are largely of Egyptian origin, and seem to form a very complete collection of the Egyptian pictorial evidence as to the Libyans. The photographs are very good and are specially well reproduced. The publishers are to be congratulated on the turn-out of the book, though, we repeat, we think its magnificence unnecessary.

PRINTED IN GREAT BRITAIN BY
RICHARD CLAY AND SONS, LIMITED.
BRUNSWICK STREET, STAMFORD STREET, S.E.,
AND BUNGAY, SUFFOLK.

ON A HISTORY OF GREEK COMMERCE.¹

IN electing me to the Presidency of the Hellenic Society you have paid me the highest compliment to which any British Hellenist can aspire. It is an honour which I accept with all gratitude and, I can assure you, with all humility. It is impossible for me to look back at the names of the distinguished men who have already held the post, without reflecting that I am not of their rank—I am by profession neither a great academic teacher nor, like my old schoolfellow and friend Sir Arthur Evans, whose position I am prematurely called upon to fill, a man who has devoted his whole life to the advancement of archæology. It would be an impertinence in me to praise the work done by Sir Arthur; it is on the lips of all the learned world.

When I think of Evans as we knew him at Harrow, I remember him in a double capacity. First as a scientific observer, by inheritance, as I need not remind you, from his distinguished and many-sided father. Whether it was a question of coins, of flint implements, or of natural history, Evans was always the leader of our school Scientific Society—matched only in some points by another friend, too soon lost to science, Frank Balfour. I remember one small matter, which always strikes me as characteristic—that Evans exhibited at one of our meetings specimens of leaves of plants from the carboniferous epoch which he had picked out of the coal-scuttle in his room. I have often since searched my own coal-scuttle, always without result. That makes me feel the gulf which separates the born scientific observer from the amateur like myself.

But it was not only in science that Evans took the lead. He was our school poet as well. We competed once for the prize poem; Evans won it; I was nowhere. And it is because Evans is not merely a trained observer, but has the great gift of imagination, that he has been able not only to collect material but to sift and arrange it, to see its place in history and to present it to the world with that literary touch which goes so far in winning the assent of the learned men of every country.

Sir Arthur has told us that the Presidency of this Society has proved a serious addition to the immense work which he has on hand—the publication of the mass of his Cretan discoveries. When he resigns on that ground, we cannot but accept his resignation. Highly though we esteem his

¹ Presidential address delivered to the Hellenic Society, June 23, 1914.

A 35.8
50

presence in this chair, yet it is clear that our own wishes must give way to the superior claims which the whole scientific world has upon him: and I should be glad to think that in taking over some part of his duties, I am at least doing a service, however small, not only to an old friend, but to the great task which he has undertaken.

Will you allow me to think that, in electing me to this position, you are recognising a tradition which is, perhaps, particularly British—the tradition that devotion to Hellenism is not the monopoly either of the library or the spade, that it is at least consistent with the busy life of the outer world? That tradition has always been alive in Great Britain; it reached its highest expression, it is hardly necessary to remind you, in the career of the illustrious George Grote, who was not only philosopher and historian, but the active head for many years of an important London bank. He has set an example which will not, I hope, ever be allowed to die out of remembrance. He proved once and for all that the spirit of Hellenism, far from being killed, might actually be vivified by close contact with the hard realities of modern life; and the significance of Greek, and especially Athenian, democracy was for the first time fully realised by the man who had learnt the spirit of popular government not in the study, but on the hustings and in the House of Commons.

The name and work of George Grote offer a telling defence of Greek studies against the aggressive and able enemies who are attacking them on every side. The future of Greek in England, the future of the Hellenic Society itself, will largely depend on the young men who set themselves to follow Grote's lead, and shew that the Greek spirit can not only be taken into active life, but that it can actually help and vivify that life. It will supply, for those who can feel it, the best of all palliatives against the killing work of drudgery. It can keep alive the imagination, that supreme faculty which is given us to keep ourselves fresh and alert, and therefore all the fitter, when the day of drudgery is over, and the work of responsibility and administration comes, to bring to the task a wide and open mind, which is versed, like Odysseus, in the cities and the ways of men, and has a horizon beyond the routine of the counting-house or the factory.

That such a wide horizon is a valuable possession for a man in business—that the gift of managing and administering requires something wider and more liberal than the rule of thumb learnt in the office or the workshop—this is a fact which is being steadily, though still slowly, learnt by the leaders of the great commerce of England. Every year the demand is growing for University men who will enter business with the special object of training themselves for the higher posts; in commerce or finance the idea that a University man is a useless product of an effete system is gradually dying out.

George Grote entered his father's bank at the age of sixteen. That was the old idea—that no one would ever make a man of business unless he started his career as a boy. No one in the City, I fancy, would now think that Grote would have made a less efficient banker if he had gone first to

Oxford or Cambridge; and I am sure that it would have resulted in a large economy of intellectual energy. The young classical student of to-day is more fortunate; let us hope that he will prove himself worthy of his privileges.

If there is any such young student now deciding on a commercial career, I should like to suggest to him that he has an opportunity of an exceptional nature for making a name somewhat like that of Grote, and doing an equally great service to the cause of Hellenic learning. There is still a great gap in our ordered knowledge of Greece, and it is a gap which we, or rather our successors, should soon be able to fill. The materials are not yet complete—perhaps they never will be really complete—but they are accumulating fast, and are already calling for preliminary treatment. As Grote made Greece live by writing for the first time with full comprehension and sympathy a political history of Greece, so some one, in no very long time, will earn equal fame by writing out of the fullness of his knowledge a commercial history of Greece. Till that is done, we shall not understand what ancient Greece really was.

To Greece more than to any country of which we know, commerce has always been the foundation of national life, the very heart's blood of existence. Greece cannot live on agriculture, manufacture, or mining. Her economic function has always been from the first the bringing together of markets by her shipping; and her place in the world has been determined by the success with which she has been able to carry out this function. Purely commercial conditions have controlled Greece even more than they have controlled Great Britain.

The historian of Greek commerce will need a large equipment of knowledge. The literary sources will be but a small part of the material on which he has to work. The whole enormous mass of inscriptions, a mass steadily growing, must be worked through with the intention to glean every scrap of information which they can supply. That alone is a gigantic task. The study of coins, their distribution, the comparative importance of the chief mints, and in particular the competition of the various standards, will I am sure still have many a secret to tell us.² Archaeology will have much to contribute—more probably than any of us yet suspect. Let me give you an instance. Mr. E. H. W. Tillyard has recently published a paper in which he estimates the mass of Attic commerce by the remains of Attic vases. Olive oil was the great natural product of Attica, and was exported in Attic vases; and Attic vases can be pretty closely dated. So far as this test can justify deductions as to one important branch of Attic commerce, it has led Mr. Tillyard to the curious conclusion that Attic exports varied not directly, as one would expect, with the growth of the sea-power of Attica, but inversely; that vases of the last three quarters of the fifth century, when Athens was at the height of political power, are rarer than those of the

² I have since learnt, with great satisfaction, that so eminent an authority as Prof. Percy

Gardner actually has a history of Greek Coinage on these lines in advanced preparation.

preceding and following periods; that the Athens of Solon and the Athens of Demosthenes were commercially more active than the Athens of Perikles. Whether that conclusion is justified by the evidence or not I do not pretend to say; at first sight it looks doubtful; but at all events it needs further consideration. I quote it only to illustrate the range of knowledge which must be at the command of the historian of commerce in ancient Greece.

There is yet another branch of knowledge which will have to be mastered. It is a young but vigorously growing science, a science which I am sure will do much to clear up much that is at present obscure—the science of Geography.

By Geography I do not mean, of course, the topographical lists of towns, rivers and mountains which passed by the name in the younger days of my own generation. I am thinking of that real science which has at last obtained recognition in England, the geography which is concerned with causes and effects; and in particular of that highest branch of it which studies the inter-relation of mankind and the surface of the globe on which they live—the branch which is known by the sufficiently expressive, if somewhat cumbrous, name of Anthropogeography. The student who designs to write the Commercial History of Greece will in the first place have to turn to Anthropogeography, and master all that it has to tell him of the laws which govern human intercourse and traffic. The Commercial History of Greece will in effect be an intensive study of several periods of ancient Anthropogeography.

Here again the young student has advantages which were denied to my contemporaries. We have had to pick up our Anthropogeography in middle or late life as best we could; we are at best but amateurs. The modern student has at Oxford and at Cambridge geographical schools which will assist him to an economy of effort denied to us. They are already bearing fruit: Professor Myres has already shewn us how anthropology and anthropogeography can illuminate the study of the classics. It is no small work to have founded a school of classical geography; the next generation will reap the harvest.

But there is a vast amount of preparatory work to be done before the comprehensive history which I am forecasting can be properly written. I am afraid that I shall never live to see it. In the immediate future our task is to clear the ground for it by special studies; and it is my desire to see the Hellenic Society take in hand some of the most pressing work.

The subject is of course very much in the air at present; students are turning their attention more and more to the fundamental economic forces which underlie development, intellectual as well as material, in ancient Greece as in modern Europe. To take only one case—you do not need to be reminded of the work of one of our own members, Mr. Zimmern's admirable book on *The Greek Commonwealth, Politics and Economics in Fifth Century Athens*. Will not Mr. Zimmern or one of our younger members make a similar study of economics at Corinth? That would be the necessary kernel of the Commercial History of Greece. One sees already the broad outlines

of such a history. It would begin far back, in the neolithic and chalcolithic ages, in the period when the second city at Hissarlik was flourishing. The extraordinary treasures which Schliemann found there are in themselves proof that active and profitable commercial intercourse then existed, and there are indications enough that traffic extended from Hissarlik and Cyprus in the east to Sicily in the west. Those were conditions under which Corinth was destined to act as emporium; and the American excavations shew that it was in fact a settlement in those early days.

Then came a break—Corinth went down, ‘side-tracked’ by the growth of Minoan Crete, which carried on its own trade to east and west without needing any emporium on the Greek mainland. Corinth in fact disappeared; and what is very remarkable, it did not reappear through the whole of the Minoan period, not even in its latest Mycenaean stage. The American excavators tell us that they have found pottery of almost every period except the Mycenaean. This entirely agrees with the evidence of Homer. Not only is Corinth practically ignored in the *Iliad* and *Odyssey*, but we can see that it could not have been in existence in Achaian days. For though Homer knows of active intercourse between Greece and the east, as far as Syria and Egypt on the one hand, and the Euxine on the other, yet the west is wholly unknown to him. And without trade connexions on the western side Corinth was useless. The Mycenaean ware of Sicily did not pass through Greece at all; I am inclined to guess that it was carried west in Phœnician ships, which brought it even as far as Spain. But Corinth had no hand in the trade.

The day of Corinth came again when Greek colonisation set westwards as well as eastwards, and occupied not only Sicily but still further shores. Then arose the Corinth of which we think, at one time the greatest city of Greece. We know the outlines of her history—the narrow commercial policy of the Bacchiadae, the aid given to Athens to destroy the power of Aegina, the deadly enmity which followed the discovery that Athens had only become a more powerful rival than Aegina had ever been. And finally we shall be told, I am sure, that Corinth was destroyed not by war, but by economic causes. The defeat of Carthage altered the whole commercial aspect of the Mediterranean. The eastern half was no longer the great area of trade; the western basin up to the Pillars of Hercules came into the arena; the timid coasting navigation of early Greece was displaced by sailors who struck boldly out into the open; the ships of Italy had no fear of Maleia, and made straight for the Euxine without troubling the Corinthian Gulf; Delos, where their path crossed the island route from Greece to Asia Minor, became the emporium; Corinth was side-tracked once more. The real destroyer of Corinth was not Mummius but Cato; *delenda est Carthago* meant also *delenda est Corinthus*. Both were wiped out in the same year; Corinth lay waste for a century because there was no longer any need for her.

Let me mention another interesting and important piece of work, which is again, I am glad to think, due to a member of this Society. I refer to Mr. Cornford’s brilliant *Thucydides Mythistoricus* in which he argues with

great force that the Peloponnesian war was in its origin an episode in the commercial struggle between Athens and Corinth. The Megarian decrees were, according to Mr. Cornford, the first attempt on the part of the mercantile party in Athens, or rather the Peiraeus, to capture from Corinth the trade of the west as they had already, by the conquest of Aegina, acquired that of the east. Megara was to be starved into submission in order that Athens might annex a harbour on the Corinthian Gulf, and so compete with Corinth for the trade which the difficulties of navigation round Maleia drove to the more sheltered route by the Isthmus. It was the defeat of this attempt, by the union of Sparta and Corinth, which led later on to the overt attack on Syracuse by the Athenians.

Now this all seems to me highly probable. It is no reply to say that, if it was the mercantile party which forced Perikles' hand into the adoption of a policy so contrary to that which he had followed for years, Thucydides must have known and stated it. Thucydides may, as Mr. Cornford thinks, have deliberately or unconsciously ignored it, even if he knew of it, because it did not square with his conception of history. But it is quite likely that he did not know of it. That is the sort of policy which is carried out by underground methods; the ambitious financier takes care to conceal himself and to influence public opinion by well-known processes, working upon popular passion by plausible but purely fictitious and sentimental appeals. Least of all is it an argument against Mr. Cornford that the mercantile classes at Athens were mere *μέτοικοι*, possessing no vote and therefore unable to influence Perikles at all. We have only to carry our memories fifteen years back to find an instance of certain *μέτοικοι* in the Transvaal, deprived of votes, as we were not allowed to forget, who managed to exercise a very considerable influence on public policy in South Africa. But exactly how they did it was a secret which they managed to keep to themselves, in spite of the combined efforts of the Imperial Parliament and an omniscient party press. The merchants of the Peiraeus had probably little difficulty in working in the dark; Thucydides may well have been kept in ignorance of the forces operating underground. At this very moment many people would like to know whether suspicions of powerful financial forces at the back of events in Mexico are justified. Those who can tell for certain are probably very few in number, and I am very sure that the acutest historian of to-day would not get much encouragement if he endeavoured to divulge the facts.

The financier certainly held a more important place in Greek politics, at least in local politics, than might appear from the ordinary text-books of history. Let me give three instances, which I have not sought for, but which presented themselves incidentally in a very small area, the north-western corner of Asia Minor.

The ancient Aeolic colony of Kyme near Smyrna was the laughing-stock of Greece for old-fashioned sleepiness. The historian Ephorus was born there. Patriotism, so the joke went, forced him to mention his birth-place in his *History of Greece*; but all he could find to say was contained in

a single sentence, added to an account of stirring doings elsewhere—‘at this time tranquillity reigned in Kyme.’

But Kyme was at all events progressive enough first to incur a municipal debt, and then to default in the payment of interest. As security for the debt they had pledged their public porticos; and these were occupied by the bankers or financiers who had made the loan. This was a serious matter for people who lived their life out of doors as all the ancient Greeks did. But the bankers were kind-hearted, and when the rain was heavy they used to send the town crier round inviting the people into the porticos. So the joke went abroad that the folk of Kyme were too stupid to take shelter when it rained, unless they were bidden. Probably these amiable money-lenders were local men who wanted votes for some ulterior object.

This story, I readily admit, can hardly be taken as serious history; the next, though it has its humorous side, is no doubt authentic. It comes from Lampsakos, only a hundred miles or so away. Euagon of Lampsakos lent his native town a sum of money, and took as security not the porticos, but the Acropolis itself. The town defaulted; Euagon foreclosed, and proceeded to realise his debt by an original method of distraint. Being in possession of the citadel, and surrounded no doubt by a force of armed clerks, he established himself as despot of Lampsakos. This, however, was more than the liberty-loving people of Lampsakos could endure; they attacked Euagon, we are told, but what is more important, they paid him off. He retired, probably, quite content with the success of his process-serving. For Euagon was not only a capitalist but a philosopher, in fact a pupil of Plato—a very dangerous combination, as Athenaeus takes care to point out.

My third instance is quite serious, and ends, indeed, not in comedy but in tragedy. Curiously enough it is another instance of the combination in one person of the financier and the student of philosophy. In this case, however, the influence of Plato was modified by that of Aristotle, which perhaps accounts for the difference. As the episode played an important part in the life of Aristotle, it is recorded for us in various sources, and the main outlines may be regarded as fully authenticated.³

The story takes us to the rather important commercial town of Assos, about half-way between Kyme and Lampsakos. Here there lived a banker named Eubulos, who had, in Strabo's words, ‘set on’ Assos and Atarneus⁴—the latter a small town about forty-five miles away, just across the Gulf of Adramyttion. It is clear from the context what this

³ Strabo xiii. 1, 57; Diog. Laert. v. 3-9; Diodor. xvi. 52; Athen. xv. 696.

⁴ ἦν δὲ Ἑρμίας εὐνοῦχος, τραπέζιτου τινὸς οἰκέτης· γενόμενος δ' Ἀθηναίων ἡκροάσατο καὶ Πλάτωνος καὶ Ἀριστοτέλους· ἐπανελθὼν δὲ τῷ δεσπότην συνετυράννευσε, πρῶτον ἐπιθεμένῳ τοῖς περὶ Ἀταρνεία καὶ Ἀσσὸν χωρίοις· ἔπειτα διεδέξατο

ἐκεῖνον, καὶ μετεπέμψατο τὸν τε Ἀριστοτέλην καὶ Ξενοκράτην καὶ ἐπιμελήθη αὐτῶν· τῷ δ' Ἀριστοτέλει καὶ θυγατέρα ἀδελφοῦ συνώκησε. The MSS. give the name as Ἑρμίας, but the inscr. mentioned be'ow is decisive. The name of Eubulos comes from D. Laert.

means—he had succeeded, no doubt by the power of the purse, overt or concealed, in setting up a despotism, apparently at Assos, certainly at Atarneus, and ran the business of government as a branch of his bank.

He had a confidential slave, a eunuch from Bithynia, named Hermias, whom he probably employed as a private secretary, and of whose ability he formed so high an opinion that he determined to give him, in modern language, a University education; in other words he sent him to Athens to study philosophy under Plato and Aristotle. Hermias attended the lectures of both, and formed an intimate friendship with Aristotle. After completing his course he returned to Assos, where his master took him into partnership, as Strabo tells us, in the despotism business—*τῷ δεσπότηι συνετυράννευσε*. In the course of time the senior partner Eubulos died, and Hermias succeeded to the business. He invited Aristotle, with Xenokrates, to stay with him; they not only came, but Aristotle married Hermias' niece, or, according to another account, his adopted daughter.

The visit had a tragic end. Hermias grew powerful enough to incur the jealousy of the Persian government. Either the notorious Memnon of Rhodes, or according to Diodoros his brother Mentor—both of them were consistent supporters of Persia against their own countrymen—had been appointed satrap of the district; the high-minded Hermias was lured to a conference by a safe-conduct, and treacherously arrested; his signet was used to obtain the surrender of his strongholds, and he was sent off a prisoner to the Great King, who duly crucified him. The two philosophers had to fly from Assos. So ended a notable career—slave, banker, philosopher, and statesman. One wishes one knew more of the man.

There are, however, two memorials of him to be mentioned. The first is the eulogy to his memory written by Aristotle himself—the only surviving instance of the philosopher's excursions into poetry. I cannot refrain from quoting you a few lines of this remarkable ode. It is addressed to *Ἀρέτη*, that untranslatable word which in this case is perhaps best expressed by Greatness of Soul. 'For thy sake,' says Aristotle, 'Herakles child of Zeus and Leda's sons endured to pursue thy majesty with much travail: yearning for thee Achilles and Aias passed into the grave: and for thy benignant grace the foster-son of Atarneus renounced the light of day. Therefore shall his deeds be sung and the Muse shall exalt him to immortality, extolling the majesty of the God of Hospitality and the gift of faithful friendship.'

The other memorial of him is still more tangible, and is not far from us at this moment. In the British Museum there is an inscription recording an alliance between the town of Erythrai and Hermias—we only learn that Hermias represents Atarneus because it is agreed that he shall set up the treaty 'in the temple at Atarneus.' But Hermias is not alone; the party to the treaty is *Ἑρμίας καὶ οἱ ἑταῖροι*. Who were these *ἑταῖροι*?

According to Hicks⁵ they are 'comrades of Hermias who commanded garrisons in towns belonging to his sway.' Let me ask if there is not a more special sense in the words—if the comrades are not in fact his partners in business—if the treaty is not made on behalf of Atarneus by the firm of 'Hermias and Company, Bankers and Despots.'

I hope I am not digressing too far from my subject. I want you to see that the History of Greek Commerce, which I foresee, will not be a mere matter of dull economics. It will throw light in many unexpected and very human directions. In particular it confirms, I think, the very suggestive paper of Prof. Percy Ure, in *J.H.S.* xxvi. 131 ff., on 'The Origin of the Tyrannis.' Prof. Ure shews strong ground for thinking that Polykrates of Samos and Peisistratos of Athens both owed their power to their wealth, gained probably in the case of Polykrates from trade, in that of Peisistratos from mines; and he draws the further conclusion that the general spread of the Tyrannis in the seventh and sixth centuries B.C. was a symptom of the rapid commercial growth which marked that period. It is surely a strong confirmation of that view that we should be able to point to two instances at least where, under the full light of history, we can trace the establishment of despotism directly to the command of capital. Tyrannies on a small scale arose in many towns of Asia Minor as Persian power decayed; the conditions of the fourth century may well throw this light on those of the seventh.

Let me, by way of further illustration, pass on to you a question which Sir William Ramsay asked me only the other day. It will serve as an instance, in a small way, of the light which such studies as I have in mind may throw on the most unexpected corners of history. It is a question which I could not answer; perhaps some of you can satisfy Sir William's most suggestive curiosity.

When St. Paul reached Philippi, on his first landing in Europe, in company with Silas and Timothy, and apparently St. Luke, he went down, as you will remember, to the river side, and spake unto the women which resorted thither. 'And a certain woman named Lydia, a seller of purple, of the city of Thyatira, which worshipped God, heard us. . . . And when she was baptized, and her household, she besought us, saying, If ye have judged me to be faithful to the Lord, come into my house, and abide there. And she constrained us.'

Now Sir William Ramsay asked me if I could tell him, or say where he could find out, what were the conditions under which a foreign seller of purple in Philippi could have a house so extensive that she could, without notice, give lodging to four men. The fact certainly implies very considerable wealth, and domestic accommodation far beyond that of an ordinary retail shop; the mere fact that the entertainer is a woman means that there must have been plenty of other people in the house—a large 'establishment' in fact.

Now I was unable to answer the question; and the fact that it is asked by Sir William Ramsay is good evidence that it has not been discussed in

⁵ *Manual of Greek Hist. Inscr.* 176.

any work dealing with Asia Minor. In fact I doubt if it has occurred to anyone else; yet it seems to me a most suggestive question. I could only tell Sir William that I could make a guess, but without any evidence to support it. What I should think to be highly probable is that the purple manufacturers of Lydia were combined in a guild to preserve the secrets of their craft and to keep up profits by excluding competition. It further seems likely that such a guild would maintain, in a place like Philippi, 'the chief city of that part of Macedonia, and a colony,' a permanent factory, which they could keep supplied with a stock sufficient for ordinary trade, with one of their number, perhaps more than one, in charge of the business. And further, I should suppose it probable that there would at least once a year be at Philippi a large fair or market, which a number of the purple-sellers would wish to attend. If that were the case, is it not likely that they would keep up some sort of a private khan, attached to the shop, in which they could put up for a time, so long as the fair lasted? If that is the case, we can see at once how Lydia would have, at any time but during the fair, means of lodging the four Christian missionaries. This is only a guess, or a series of guesses, which may be wrong at any point. But it is a question which is, I feel sure, capable of investigation; and it raises a point of the highest importance for the historian—the whole question of the status of the middle classes in an important provincial city of the Roman empire. There may be no evidence available on the particular points I have mentioned—on the existence of a guild of purple-sellers in Lydia,⁶ or of an annual fair at Philippi; but there must be evidence, and abundant evidence, somewhere as to the organisation of trade, the prevalence of guilds, the custom of fairs in large centres of population. The evidence may be for or against: but in any case it is worth looking for and placing on record in some accessible form.

Now the task of collecting and arranging the various evidence of which I have spoken is already a huge one; and it is not likely to grow less formidable as time goes on. Much of it will doubtless be done by individuals; but there is a great deal which calls for some organised effort—there are departments which are already almost if not quite beyond the power of a single man, if we are to have any useful work completed within a reasonable time. And my special object now is to call your attention to one such piece of work for which I believe that the time is now ripe—and that is an adequate edition of Strabo's *Geography*.

Such an edition is indeed a gigantic work, and I doubt if there is any man living who could deal properly with the whole area included in Strabo, from Spain to India. If we are to wait for an edition of the whole, we shall have to wait, I fear, too long for many of us. But I cannot help feeling that a beginning will be made, and a definite result achieved in no long time, if we take a single portion of Strabo, and set about it at once. It will be somewhat of an experiment: but it will lead the way and show how

⁶ I have since learnt from Sir W. Ramsay that the existence of such a guild is in fact established by inscriptions of Thyatira.

the problem must be tackled; it will surely be of service if only in helping to a more perfect completion of the rest of the work.

And there is one particular part of Strabo which offers itself for such treatment. I am thinking of the three books, from the twelfth to the fourteenth inclusive, which deal with Asia Minor.

These three books cover a well-defined area, which is from every point of view of the utmost importance. For the commercial history of Greece it is the most important of all; for it includes the coasts alike of the Aegean, of the Syrian and the Pontic Seas; every trade route from north-east to south-east touches it. It is still comparatively unknown ground in comparison alike with Greece itself and the lands to the west of it. And it is particularly a region where British scholars and travellers have a first claim and special ability in virtue of the work they have already done there. It is work which should be undertaken by Great Britain.

The edition which I have in my mind will of course be in the first instance topographical: but it should give, province by province, a geographical description in the widest sense, discussing the line of roads, the routes of trade—often a very different matter from the roads—the sites of cities and the reasons, whether historical or economical, of their rise and decline. This will involve also a physiographical description, covering the geology—highly important both for the influence it has had on communications, and for the importance to Asia Minor of its mineral wealth—and including also an account of the animal and vegetable products of the country, with its vast sheep pastures in the central plateau and the almost subtropical wealth of the forest along the shores of the Black Sea.

All this is of course the primary task of any commentary on a geographical work. But I should like to see the Strabo offer more than this. It might well follow the example of Frazer's Pausanias, and be made a storehouse of information about all that concerns each district, so far as it bears in any way upon ancient history. There should be a summary of epigraphic and numismatological authorities, something about the many characteristic religions and myths, a short statement of all the chief views on either side of disputed questions, and in all cases full references to published works, in the more important cases with an abstract of their contents. Here would be perhaps the great service which the commentary could render to the historian. The literature about Asia Minor is already vast, and is growing rapidly. We have reached a point when it is both possible and desirable that it should be rendered accessible to the student who cannot afford to spend years in searching out from the mass exactly what would be serviceable to his own purpose.

You will see that, though I have spoken of this work in connexion with economics, and in particular with economic geography, this is only one out of many purposes which such a collection would serve. It would be in fact a thesaurus of information about Asia Minor on a geographical basis, serving the uses of the philologist, the archaeologist, the epigraphist, the numismatist, and the general historian as well as the economist.

It will be a work in which cooperation is needed ; it will be the work of a band of scholars. And cooperation involves organisation. It is here that there will, I think, be a useful part which our Society can play. Britain fortunately possesses a number of men at the present moment specially qualified for the task which I have suggested—men intimately acquainted with the whole of Asia Minor, and full of information still unpublished. They will have to do the work ; but their energies must be economised. They must so far as possible be relieved of the mere mechanical drudgery of organisation, and left free to do the work which they, and they alone, can do. The business of the Hellenic Society is to render aid in a case like this, and I earnestly hope that it will be possible to design some means by which this assistance can be given.

It would be mere impertinence in me to suggest such a scheme if I had not first assured myself of the willing and active aid of the men who are uniquely qualified to deal with the work. Sir William Ramsay is of course the name which comes first to one's mind. Sir William is at the moment in Pisidia ; but I am happy to tell you that I speak in his name as well as my own. On him must needs devolve the superintendence of the whole work ; a large portion he will have to do himself. Second only to Sir William's name is that of Mr. Hogarth ; and Mr. Hogarth has assured me that he too will gladly take his share. Further than this it is needless for me to go at the moment ; if the Society will take up the task, the essential foundations are already laid.

WALTER LEAF.

THE IONIAN CONFEDERACY.

THE federal union of the Ionian cities established on the coast of Asia Minor and on the adjacent islands has not yet been the subject of any comprehensive study. In the standard books on Greek federations it has received no more than passing mention. Freeman¹ has made some instructive comments on it, but has not followed its fortunes beyond the earlier years of its existence; Swoboda has not found room for a description of it in his recent and up-to-date manual.² A discussion of some principal problems concerning the League is offered in the following pages.

I.—*Origin of the League.*

A precise date for the institution of the League cannot be furnished, but the time of its formation can be defined within certain limits.

In the first place, it is clear that the League had no existence antecedent to the Ionian migration. The alleged derivation of the Ionians from Achaea, which might be used to prove that the Ionian League was an offshoot from a prehistoric union of Ionian cities in Achaea, may be set aside as a fiction of late growth,³ for the traditions of the several Ionian cities know nothing of an Achæan origin for any of their inhabitants.⁴ Indeed it is idle to look for any common home of the Ionian nation. If anything emerges clearly from the foundation stories of the individual Ionian cities, it is the fact that they drew their settlers from many different quarters. The colonists cannot have brought with them any national consciousness, Ionian or other.⁵ But this is

¹ *History of Federal Government* (ed. 1893), vol. i. pp. 145-9.

² In Hermann's *Lehrbuch der griechischen Staatsaltertümer* (6th ed.), vol. i. Pt. III.

³ The belief that the Ionians had their original home in Achaea is first found in Herodotus (i. 145). In the fourth century B.C. it was shared by the Ionians themselves (Timotheus l. 247; Diodorus xv. 49). This tradition does not seem to rest on any other foundation than the similarity of name between Poseidon of Helice in Achaea and the Poseidon Heliconius of the Ionians. The real origin of the latter is certainly to be sought in Mt. Helicon in Boeotia, as was pointed out long ago by Aristarchus (*Schol. in Il. xx. 404*). The importation of a

Boeotian god into Ionia can be readily explained by the presence of Boeotian settlers in a good number of the Ionian towns (Wilamowitz-Moellendorff, *Sitzungsber. Berl. Ak.* 1906, pp. 63-73).

⁴ The importance of the traditions of the individual Ionian cities has been clearly brought out by Wilamowitz-Moellendorff (*loc. cit.*).

⁵ It is sometimes argued that the Ionians were a widely diffused people in prehistoric Greece, and that the colonists who migrated to Asia Minor from Attica, Argolis, Cynuria, and Euboea belonged to this nationality. If this were the case, the preponderance of the Ionian element among the settlers would have been sufficient to justify our speaking of a national

as much as saying that previous to the migration they were bound by no federal tie, for an Ionian League presupposes a feeling of common Ionian nationality.

On similar grounds we may reject the entry in the *Marmor Parium*⁶ which synchronises the establishment of the League with the foundation of Miletus and all the other Ionian cities, and assigns all these events to 1086/5 (or 1076/5) B.C.⁷ This date is by no means a bad guess at the era of Miletus,⁸ but in all probability it is no more than a guess,⁹ and is not founded on any documentary record such as a list of eponymi. Moreover it is plainly inapplicable to the history of the other cities and of the League, for if the Ionian migration was not the work of a united nation, it stands to reason that the cities of Ionia were not all built in one year, and that the League, being subsequent to the formation of an Ionian nation, was a growth of later time.

On the other hand the existence of the League at least as far back as the beginning of the seventh century B.C. is well attested. In an inscription of 200—190 B.C.,¹⁰ containing an arbitral award by the Rhodians in the case of a frontier dispute between Priene and Samos, we read that the territory of Melia, containing the land in dispute, had formerly been adjudicated by the *κοινὸν τῶν Ἰώνων* at the *Πανιώνια*.¹¹ In a passage of Vitruvius¹² we further read that the 'commune consilium' of the Ionians had previously decreed the destruction of Melia. Now the date of these events can be ascertained by reference to another inscription,¹³ the importance of which for

Ionian consciousness among them. But except in Attica and the town of Troezen, the presence of an Ionic element in the prehistoric population of the colonising districts is very badly attested. In the rest of Argolis there are no sure traces of a primitive Ionian population. Herodotus' surmise that the Cynurians had once been Ionians (viii. 73) is plainly no better than a guess: in his own time the Cynurians were admittedly indistinguishable from Dorians. The tradition that Euboea was originally an Ionian island is of late date and conflicts with earlier and more trustworthy accounts (Busolt, *Griechische Geschichte*, i.² pp. 288-9). *A priori*, too, it is unlikely that the term 'Ionian' should from the first have denoted a widely diffused group of peoples, for generic names of this sort are not likely to be in use among primitive peoples. Historic analogy tends to confirm the conjecture of Wilamowitz-Moellendorf, that the Ionians, like the Hellenes, were originally a small tribe whose name was applied, *faute de mieux*, to larger aggregates when the need for collective names came to be felt.

⁶ *I.G.* xii. 5, No. 444, epoch 27: ἀφ' οὗ Νη[λ]εὺς ὠκισ[ε] Μίλη[τ]ον καὶ τήν[υ] ἔλ[λ]η[ν] αἰ[σ]π[α]σ[αν] Ἰωνίαν καὶ τὰ

[Παν]ιώνια[α] ἐγένετο, ἔτ[η] [ῬΗΗΗ]ΔΙΙΙ (or [ῬΗΗΗΔ]ΔΙΙΙ).

⁷ According as [ῬΗΗΗΔΙΙΙ] or [ῬΗΗΗΔΔΙΙΙ] is read.

⁸ The earliest pottery discovered on the site is of late Mycenaean style (v. Salis, *Neue Jahrbücher*, 1910, p. 129).

⁹ It probably means 'four generations from the fall of Troy.'—See Jacoby, *Marmor Parium*, p. 151.

¹⁰ *Inscriptionen von Priene*, No. 37 (= Collitz-Bechtel, *Dialektinschriften*, No. 3758).

¹¹ Ll. 54-59: Κάριον καὶ Δρυοῦ[σσαν, καὶ ἐπε]δέκν[υον ἐν ταῖς Μαιανδρ]ίου τοῦ Μιλησίου ἰστο[ρίαις κατακε]χωρισμ[ένον, διότι καὶ ἂ] λοιπὰ χώρα ἂ Μελιάς [ὑπὸ Ἰώνων κοινο]ῖ? αὐτοῖς ἐδόθη [μ]ετὰ τὸν πόλεμον τὸν Με[λιακόν, ἐφ' ᾧ νέμ]εσθαι αὐτὰ[ς καθώ]ς καὶ τὸ Ἰώνων κοιν[όν] ὑπὲρ αὐ[τῶν] ἔκρινε Πανιώνιοις.

¹² iv. 1: Melite (*i.e.* Melia) propter civium adrogantiam ab his civitatibus (*i.e.* 12 other Ionian towns) bello indicto communi consilio est sublata.

¹³ *C.I.G.* 2254; Hicks, 152; Michel, 36; Dittenberger, *Or. Graec. Inscr.* No. 13; *Inscriptionen v. Priene*, No. 500.

the present question was first shown by Wilamowitz-Moellendorff.¹⁴ In a rescript of king Lysimachus (c. 300 B.C.) to the Samians, in regard to the aforesaid frontier dispute with Priene, it is stated that Lygdamis on his foray into Ionia found the debatable land in the possession of the Samians and the Prienians.¹⁵ The Lygdamis of this inscription can hardly be any other than the notorious leader of the Cimmerians, whose incursion into Ionia befel about 650 B.C.¹⁶ Consequently by this time the partition of the Melian territory, by which it came into the possession of Samos and Priene, had already been effected. But since the partition was the act of the Ionian League, it follows that this body had come into existence before 650 B.C.

This date is confirmed by a passage in Pausanias¹⁷ which records the inclusion of Chios in the Ionian League by a king named Hector. We may agree with Wilamowitz-Moellendorff¹⁸ that the kingship in Chios, as in other Ionian states, can hardly have survived beyond the middle of the seventh century B.C. Hence the League into which Chios was absorbed at that time must have been formed previous to 650 B.C.

Some further light may be thrown on the origin of the League by considering it in relation to the Ionian *πανηγύρις* at Delos. The Delian festival must have been instituted before 600 B.C., for the Hymn to Delian Apollo, which is a work of the seventh or possibly the eighth century B.C.,¹⁹ makes mention of this gathering,²⁰ and from the general context of the poem we may infer that the festival already attracted worshippers from all those peoples of the Aegean seaboard to whom the name 'Ionian' was eventually applied.²¹ The question now arises whether the *Πανιώνια* celebrated by the Asiatic cities at Mycale was of earlier or later date than the *Πανιώνια* of the generality of Ionians at Delos. Herodotus clearly implies that they were of later date, for he represents the league of Asiatic Ionians as a schismatic offshoot from the larger Ionian nation.²² But if this were so, how came the festival at Mycale to be called *Πανιώνια*? If the more catholic Ionian holiday at Delos had already been instituted at the time when the 'Sonderbund' of Asiatic cities was formed, it would have been absurd for these to claim the title of a 'pan-Ionian' assembly.²³ On the other hand there would be nothing strange in their proceedings if the name *Πανιώνια* had been

¹⁴ *Sitzungsber. Berl. Ak.* 1906, p. 38 sqq.

¹⁵ L. 11 sqq.: οἱ μὲν οὖν Πριηνεῖς
 συνωμολόγουν Λυγδάμειος ἐπελθόντος ἐπὶ
 [τὴν] Ἰωνίαν μετὰ δυνάμειος τοὺς τε
 λοιποὺς ἐγλίπειν τὴν χώραν [καὶ Σ]αμί[ους
 εἰς τὴν νῆσον ἀποχωρῆσαι, τὸν δὲ Λύγδαμιν,
 κατασχόντα [.] πάλιν ἀποδιδόναι
 τὰς αὐτὰς κτήσεις, τοὺς [δὲ Πριηνέας ὑπο-
 στρέψαι.

¹⁶ Busolt, *Griechische Geschichte*, ii.² p. 463.

¹⁷ vii. 4. 9-10.

¹⁸ *Op. cit.* pp. 52-3.

¹⁹ Christ, *Geschichte der griechischen Literatur*, i.⁶ pp. 102-3. Wilamowitz-Moellendorff (*loc. cit.* p. 71) fixes the date of the Hymn at

a period not much later than that of *Iliad* bk. xv.

²⁰ L. 146: ἐνθα τοι ἑλκεχίτωνες Ἰάονες
 ἤγερέθονται. L. 152: ὅτ' Ἰάονες ἀθρόοι εἶεν.

²¹ Ll. 29-44 of the Hymn recount a variety of places in the Aegean basin where Apollo was 'king.' It seems a fair inference that the Delian *πανηγύρις* was attended by representatives from these districts.

²² i. 143.

²³ Similarly the name *Μεγάλη Ἑλλάς* must have been assumed by the Achaean cities of South Italy before *Ἑλλάς* had become a generic term for Greece.

applied to the festival at Mycale at a time when the name 'Ionian' was still confined to the Asiatic cities and had not yet been extended to other parts of the Aegean coast. And we may reasonably assume that the term 'Ionian' was current among the cities of Asia Minor before it spread to all the various peoples who worshipped Apollo at Delos, for a national name of this kind is more likely to be used in the less extensive sense before it acquires its wider meaning,²⁴ and Herodotus asserts that the Asiatic cities gloried in the name 'Ionian' at a time when others still shunned it.²⁵ Our conclusion therefore is that the *Πανιώνια* at Mycale and the league which celebrated it were older than the *πανηγύρις* described by the Homeric Hymn. In other words, the Ionian League was established early in the seventh century, or possibly at a still more remote date.

To sum up: the Ionian League cannot have been instituted until some considerable time after the Ionian migration, but was certainly in existence by 650 B.C. A date between, say, 900 and 700 B.C. is thus indicated for the origin of the League.

II.—*Purpose of the League.*

According to Wilamowitz-Moellendorff²⁶ the Ionian cities first banded themselves together for the purpose of coercing the town of Melia, and they consolidated their alliance into a federation in order to combat the aggressions of the Lydian kings. Neither of these views seems well established. Although Vitruvius²⁷ represents no less than twelve other Ionian towns as making war upon Melia, it is unlikely that a league of these should have been expressly called into being for so petty an object; such a procedure would be like cracking a nut with a Nasmyth hammer. And as to the Lydians, all records of federal action against these are conspicuous by their absence. It is well-known that the Mermnad kings were unusually humane conquerors, and they were not averse to making special conventions with individual Ionian towns.²⁸ Hence it is not a matter for surprise that the Ionians as a nation did not unite effectively against Lydia. Their league, far from gaining strength under stress of the Lydian peril, would seem rather to have been in abeyance in this crisis.

One important point, however, must be freely conceded to Wilamowitz-Moellendorff. The purpose of the League was political, and not sacred, like that of the pan-Ionian synod at Delos. Had the primary object of the League been religious, its meetings would surely have been held in some sanctuary of wide repute, such as the temple of Apollo at Branchidae, or that of Artemis at Ephesus, or at the seat of the oracle at Clarus. But the reverse is the case. The cult of Poseidon at Mycale was of quite subordinate importance and would hardly have been heard of but for its connexion with the League. To all intents and purposes the League created the cult; the cult certainly did not create the League.

²⁴ Witness 'Ελληνες,' 'Itali,' 'Franks,'
'Britons.' ²⁵ i. 143.

²⁶ *Loc. cit.* pp. 46, 78.

²⁷ iv. 1.

²⁸ *E.g.* Miletus.

What, then, was the political end which the League was designed to compass? A clue to this problem is furnished by Wilamowitz-Moellendorf, who shows good reason for believing that the territories of several Ionian towns had once belonged to the Aeolians,²⁹ and throws out the suggestion that the sense of common nationality was aroused among the Ionian cities by contrast with the neighbouring Aeolians.³⁰ It is but one step further to suppose that the Ionian League was formed for the purpose of maintaining and extending Ionian territory at the expense of the Aeolians. These latter had undoubtedly formed a coalition against the Ionians on the occasion of the war for the possession of Smyrna,³¹ and if the Ionians defeated this coalition, they too must have been banded together in a league. But since the wars which the Ionians waged against the Aeolians were *ex hypothesi* previous to the foundation of several Ionian towns, they must have occurred at an early date, for the tale of Ionian communities had been completed by 650 B.C.³² Hence it may be inferred that the rivalry between Ionians and Aeolians dates as far back as the Ionian League, and that it was the cause of the League.

If any special reason were needed for explaining the continuance of the League, we had better look, not to the Lydians, but to the Cimmerians. Unlike the Lydians, the Cimmerians had no great sympathy with the Greeks and showed no mercy to their antagonists, but destroyed cities³³ and temples³⁴ alike. The flutter which they and their allies caused among the Ionians is attested by the poems of Archilochus and Callinus, and by the well-known sarcophagi from Clazomenae. The Cimmerian invasion therefore would seem a suitable occasion for the consolidation of the Ionian League.³⁵ But there is no imperative need for supposing that anything more than the hostility of the Aeolians was the cause of the League being formed and maintained. Indeed the supineness of the League in the days of the Lydian invasion suggests that it had not been called into activity since the Aeolian wars.

III.—*Number of Federating Cities.*

In Herodotus' days the League counted twelve members, and this number had then become fixed and consecrated.³⁶ Nevertheless it certainly does not represent the original total of federating cities. On the one hand the early League lost a member by the destruction of Melia,³⁷ on the other

²⁹ The conversion of Smyrna from an Aeolian into an Ionian town is well attested (Herodotus i. 150). For the case of Phocaea, Clazomenae, Chios and Erythrae, see *Sitzungsber. Berl. Ak.* 1906, p. 62.

³⁰ Similarly the philo-Dorian and anti-Ionian bias of Herodotus seems to have been induced in him by the rivalry between the Dorians of his native city of Halicarnassus and the neighbouring Ionians, especially the Milesians.

³¹ Herodotus i. 150.

³² This follows from the passage of Vitruvius and the inscriptions quoted on pp. 2 and 3 above.

³³ Magnesia-on-Maeander.

³⁴ The Artemisium at Ephesus.

³⁵ The *ἀνδραγαθία* for which the Ionian League honoured Hector of Chios (Pausanias vii. 4. 10) may have been displayed in the Cimmerian wars.

³⁶ Herodotus i. 145.

³⁷ Vitruvius iv. 1.

hand it gained new confederates by the inclusion of Smyrna,³⁸ Chios,³⁹ Phocaea,⁴⁰ and possibly Erythrae and Clazomenae.⁴¹ Whether the remaining cities of Miletus, Myus, Priene, Samos, Ephesus, Lebedus, Teos and Colophon all entered the League at its inception cannot be ascertained.

After the second foundation of Smyrna by king Lysimachus (*c.* 300 B.C.) the League attained its highest total, viz. 13 cities. In all probability this number was speedily reduced, but in theory at least the League henceforth was always made up of 13 communities.⁴²

IV.—*Constitution and Powers of the League.*

From the evidence discussed above⁴³ it is clear that the League possessed the powers of waging war and of acting as a court of arbitration. The exercise of these powers presupposes some kind of permanent federal council, and we need not doubt that regular sessions of delegates took place at the Panionia. On the other hand it is uncertain whether the councillors had powers to conclude business or were merely deputed, 'ad referendum.' Still more impossible is it to say on what principle they were elected, and whether a system of proportional representation was in force. No mention is made of a special federal executive, and the inefficiency of the League which we notice in the days of the Lydian and Persian wars strongly suggests that it depended for the carrying out of its decrees on the governments of the federating cities.

The need for a more centralised administration did not escape the notice of the wiser heads among the Ionians, and at the time of the first Persian conquest proposals for reform were duly made. It was suggested by Bias of Priene⁴⁴ that the Ionians should save themselves by means of a *συννοικισμός* in the literal sense of the word. However sound this plan may have been from a military point of view, it offered all sorts of economic disadvantages, and it was an outrage on the Ionians' sense of attachment to their homes. To make matters worse, Bias proposed that the new Ionian city-state should be founded, not in Ionia, but in far-away Sardinia. No wonder that his scheme was rejected.

A less drastic proposal was put forward at the same time, of which the philosopher Thales was possibly the author.⁴⁵ According to Hero-

³⁸ Vitruvius iv. 1.

³⁹ Pausanias vii. 4. 9.

⁴⁰ Pausanias vii. 2. 4; 3. 10.

⁴¹ Wilamowitz-Moellendorff, *loc. cit.* p. 62.

⁴² See p. 186 below.

⁴³ Vitruvius iv. 1; *C.I.G.* 2254; *Inscr. v. Priene*, No. 37.

⁴⁴ Herodotus i. 170. Wilamowitz-Moellendorff (*loc. cit.* p. 47) has thrown doubts on the tradition which makes Bias the author of the plan in question, because Bias, as one of the Seven Sages, was a convenient peg on which to hang an anecdote. But there is nothing im-

probable in Bias having really put forward the plan. He certainly was a contemporary of Croesus (Herodotus i. 27), and therefore of Cyrus; and as a citizen of Priene, which had recently been enslaved by the Persians (Herodotus i. 161), he would be particularly likely to propose some desperate measure of self-defence.

⁴⁵ Wilamowitz-Moellendorff's (*loc. cit.*) suspicions about the part here ascribed to Thales appear well founded. It is doubtful whether Thales was still alive in 545-540 B.C., the time of the events under discussion. He had predicted an eclipse of the sun in 585

dotus.⁴⁶ Thales bade the Ionians *ἐν βουλευτήριον ἐκτῆσθαι*, τὸ δὲ εἶναι ἐν Τέφρ, τὰς δὲ ἄλλας πόλεις οἰκεόμενας μηδὲν ἡσσον νομίζεσθαι κατάπερ εἰ δῆμοι εἶεν. These words have been variously interpreted. According to Stein, the intention was to set up a 'Bundesstadt' in place of a 'Städtebund',⁴⁷ which presumably means that all Ionians were to surrender their autonomy in return for the franchise of Teos, as the members of the Chalcidian League in the fourth century gave up their independence in return for the franchise of Olynthus, and as the Italians eventually abandoned their status as 'socii' in order to become Roman citizens. Freeman on the other hand holds that Thales 'intended each city to retain its separate being as an independent city, and only wished to form a Federal Council for common consultation and defence against the barbarians.'⁴⁸ How and Leigh state the case as follows: 'Herodotus seems to think the proposal of Thales was for complete political unification, as he says the cities were to be mere demes: but Thales can only have meant that the *ἐν βουλευτήριον* was to control foreign relations.'⁴⁹ In Grote's opinion the idea was 'that all the other cities should account themselves mere demes of this aggregate commonwealth or Polis.'⁵⁰ Blakesley⁵¹ suggests a contamination of *μηδὲ νομίζεσθαι* and *ἡσσον νομίζεσθαι*, i.e. the cities were to forfeit their political existence altogether.

The only point on which the critics are agreed is that only a political and not a residential *συννοικισμός* was contemplated; and indeed this much is established clearly by the words *οἰκεόμενας μηδὲν ἡσσον*. Their views diverge widely as to the political relations between the League and the cities, and as to the actual powers to be invested in the federal authorities. The explanations of Grote and Blakesley need not here be discussed. Grote evades the difficulty, and Blakesley creates more perplexities than he solves.⁵² Stein's interpretation is philologically sound, but historically improbable. To ask any Ionian city to merge itself in any other city would have been a bold undertaking; to require its absorption by Teos of all places would have been absurd. Teos had never been a large town, and recently it had lost a number, probably the greater number, of its inhabitants by emigration.⁵³ In size and importance it was simply not comparable with several of its neighbours, and its central situation did not make its franchise any more desirable. We may therefore reject Stein's

B.C., and the scientific attainments necessary for such a prediction can hardly have been obtained by him in his earliest youth. Hence he must have been born a very long time before 545-540 B.C. Furthermore, his native city of Miletus kept aloof from the other Ionian towns and made separate terms with Cyrus (Herodotus i. 169). It is therefore unlikely that any any Milesian took part in the congress in question.

⁴⁶ i. 170.

⁴⁷ Note *ad loc.*

⁴⁸ *Federal Government*, i. p. 147.

⁴⁹ Note *ad loc.*

⁵⁰ Vol. iii. p. 82 (1904 edition).

⁵¹ Note *ad loc.*

⁵² Blakesley's words 'into the notion of a πόλις always entered that of self-government in foreign relations as well as in domestic' are flatly untrue. Greek history has plenty of instances in which cities entered leagues and subordinated their foreign policy to a higher authority, yet did not cease to be πόλεις.

⁵³ Herodotus i. 168.

suggestion that the Ionians were being asked to convert their federation into a unitary state.

On the other hand Freeman hardly goes far enough in speaking of a council for 'common consultation and defence.' This description could quite well be applied to the Ionian League in its unreformed and ineffective condition; it in no way explains what practical difference the reformed constitution was intended to produce.

How and Leigh's explanation is an advance upon Freeman's in that it attributes to the reformed League the *controlling* power in foreign policy. This suggestion brings out the proper force of the comparison between the federating cities and *δῆμοι*. In Greek states a *δῆμος* commonly had its local self-government and local executive, and its members might or might not possess the franchise of the *πόλις* to which it was attributed, but in no case could a *δῆμος* enter into relations with foreign powers. However else the relations of *πόλις* and *δῆμος* might vary, the *πόλις* always exercised *exclusive* control of foreign policy.⁵⁴

We may, therefore, agree with How and Leigh that the distinctive feature of the reformed League was to be that the cities were to lose all powers of waging wars and making treaties independently, that reference of questions of foreign policy to the League Council was to be henceforth not permissive but compulsory.

This conclusion raises the question whether the League was to be provided with an executive of its own. To make its control over the foreign and military policy of the cities effective, the League could not properly have dispensed with a separate executive. The analogy of *πόλις* and *δῆμος* also points to the same inference. Though the *δῆμος* commonly had its own officials, the *πόλις* never lacked a separate magistracy and indeed was inconceivable without it. Moreover the executive of the *πόλις* would invariably override that of a *δῆμος* in case of conflict. But the only certain thing is that the League was intended to exercise an effective control over foreign and military policy; the means proposed for making that control effective cannot be determined.

Whatever the precise details of the above scheme may have been, there can be no doubt as to its soundness. The lack of a controlling organ which might *compel* the cities to fall into line at times of common peril was the very cause of the League's comparative ineffectiveness. A further good point in the scheme was that the seat of the federal government was to be transferred from Mycale to Teos. The central situation of Teos made it obviously suitable as meeting place for a parliament, and its small size was a guarantee that it would not gain a controlling influence in the federal Council, as Athens did in the Council of the Delian League. We may share Herodotus' regret that no attempt was made to save Ionia by reconstituting its League on the above lines.

⁵⁴ No further conclusion can be drawn from the use of the word *δῆμοι* in a federal inscription of the 3rd century B.C. (Michel, No. 486, ll. 24,

42). Here *δῆμοι* simply means the inhabitants of a city.

V.—*Decline of the League.*

We have already noted that the League contributed little or nothing to the defence of Ionia against the Lydians or Persians. It is not known whether the League was in abeyance under either of these foreign dominations. But, as has been seen, it displayed some activity in the interval between the fall of Lydia and the conquest by Persia and it certainly helped to organise the common defence in the rebellion of 499—493 B.C. On this occasion we find that before the battle of Lade representatives of the cities (*πρόβουλοι*) met at the Panionium to discuss the conduct of the campaign,⁵⁵ and that the *κοινόν* appointed admirals to hold the seas round Cyprus.⁵⁶ But on the whole, little is heard of federal action in the Ionian revolt. The movement was certainly not begun by any common organisation, but had its origin in the city of Miletus alone, and the campaign of 498 B.C. was apparently directed from Miletus.^{56a} Apart from the admirals sent to Cyprus in 497 B.C., there is no trace of a federal executive, and in the critical campaign of Lade no attempt seems to have been made to place all the contingents under one supreme command. Two cities, Ephesus and Colophon, sent no squadron at all. The fleets of the remaining towns were indeed subordinated for a while to one generalissimo, Dionysius of Phocaea, but this appointment was made in an *ἀγορά* or mass meeting of sailors at Lade,⁵⁷ not in a session of the *κοινόν*; and the appointment was cancelled before the battle had been joined.

The dissolution of the League after the reconquest of Ionia by the Persians is not directly attested, but it stands almost beyond the range of doubt. It was clearly in the interests of Persian policy to suppress a body which might yet be used to unite the Ionians in a more effective rebellion, and the conquerors who burnt down the temple at Branchidae would not have any scruples in doing away with the festival at Mycale. A proof of the League's suppression may also be found in the fact that the Ionian cities were now compelled to conclude treaties with each other for the settlement of suits between their respective citizens.⁵⁸ The regulation of such matters by *συνθήκαι* between the individual cities suggests that the federal court of arbitration had been closed. If appeals from the decisions of the municipal courts were allowed, we may be sure that these were made to the Persian governor at Sardis, and not to any *κοινόν* at Mycale.

The liberation of Ionia after the Great Persian wars does not appear to have led to a reconstitution of the League, and the inclusion of Ionia in the Athenian empire was a fatal obstacle to any such reorganisation. The Athenians, who were well acquainted with the principle of '*divide ut imperes*,'⁵⁹ would not have tolerated the growth of a sectional league within

⁵⁵ Herodotus vi. 7.⁵⁶ *Ibid.* v. 109.^{56a} *Ibid.* v. 93–99.⁵⁷ *Ibid.* vi. 11–12.⁵⁸ *Ibid.* vi. 42.⁵⁹ [Xenophon], *Ἀθηναίων Πολιτεία*, ii. 2.

their Delian Confederacy, least of all on the Asiatic continent, where intercourse between city and city could not be cut off by their fleet, and intrigue with Persia was always feasible. Moreover as regenerators of the greater Ionian *πανηγύρις* at Delos⁶⁰ they could not look with favour upon a rival Ionian festival at Mycale. On the other hand the Ionians of Asia could not regard the suppression of their *κοινόν* as a serious grievance, for they had access to the pan-Ionic festival at Delos, and so long as the parliament of the Delian Confederacy lasted, they, like the other allies of Athens, had their fair share of voting power therein.⁶¹

VI.—*Reconstitution of the League c. 400 B.C.*

A revival of the League in the fourth century B.C. is attested by several authorities. The *βουλή τῶν Ἰώνων* and the *Πανιώνιον* are mentioned in an inscription which is at least as early as the middle of the fourth century and may go back a good deal further in time.⁶²

From Diodorus⁶³ we receive the following account.—A league of nine Ionian cities had been wont to hold a *Πανιώνιον* at Mycale. Owing to stress of war it removed its sessions to the neighbourhood of Ephesus, where it proposed to set up an altar in exact imitation of the altar of Poseidon at Helice in Achaea. An embassy was therefore sent to the Achaean League and received the necessary permission to take a model of the altar. Nevertheless the people of Helice did violence to the Ionian envoys and plundered their belongings. Wherefore Poseidon destroyed Helice by earthquake. A *terminus post quem* for these events is supplied by the mention of the earthquake, which happened in 373 B.C. It does not follow that the embassy of the Ionians to Achaea was sent immediately before 373 B.C., and the mention of wars which drove the League from Mycale to Ephesus suggests a still earlier foundation date. These wars may best be identified with the campaign of 392 B.C., in which the Persian satrap Struthas defeated the Spartan Thibron not far from Priene.⁶⁴ On this showing the League was reconstituted not later than 392 B.C.

A slightly earlier date is suggested by the concluding verses of the recently discovered *νόμος* of Timotheus, in which the poet appears to

⁶⁰ Thucydides, iii. 104.

⁶¹ Busolt, *Griechische Staatsaltertümer*, p. 211.

⁶² *C.I.G.* 2909 (Michel 484; Collitz-Bechtel 5588; *Inschriften v. Priene* 139): ἐπὶ πρυτάνεως Ἀμύντορος ἔδοξεν Ἰώνων τῇ βουλῇ τῶν Λεβεδίων ἀξιόντων ἀναγράψαι εἰς στήλην τέλεσι τοῖς ἑαυτῶν καὶ στήσαι εἰς Πανιώνιον περὶ τῆς δίκης, δοῦναι αὐτοῖς κατάπερ καὶ αὐτοὶ ἀξιούσι. The *πρύτανις* here mentioned is probably a federal officer, and not an *ἱππώνυμος*

of Priene (Lenschau, *Leipziger Studien* xii. p. 183). Hence we cannot accept the argument of Hiller (*Inschriften v. Priene* 139, note *ad loc.*) that the inscription is previous to 335-4 B.C., the year in which Priene adopted the system of dating by *στεφανηφόροι* instead of *πρυτάνεις*. Nevertheless the form of the letters proves that the inscription is previous to 350 B.C.

⁶³ xv. 49.

⁶⁴ Xenophon, *Hellenica*, iv. 8. 17-19; Diodorus xiv. 99.

refer to the Ionian League.⁶⁵ As the composition was not later than 395 B.C.⁶⁶ the inference is that the League was revived about 400 B.C. Its restoration may have been due to Agesilaus, whose policy was to conciliate the Asiatic Greeks and to foster Hellenic solidarity among them. But it may equally well have been the result of independent action by the Ionian cities, who had recovered their freedom in 401 B.C. at the hands of Cyrus, only to be threatened with fresh subjection to Persia after Cyrus' death,⁶⁷ and received no effective support from Sparta till the arrival of Dercyllidas in 399 B.C. It is not impossible that the appeal addressed to Sparta for help against Persia,⁶⁸ was made by the League on behalf of the threatened cities.

The number of cities participating in the revived League was only nine.⁶⁹ The three outstanding cities cannot be determined with certainty; but it may be conjectured that they were Miletus, which had never escaped Persian domination since 404 B.C.,⁷⁰ and the island states of Samos and Chios, which were not directly threatened by Persia.

The duration of the League of nine cities cannot have been long. The surrender of the mainland towns to Persia by the King's peace of 386 B.C. must have involved its disruption, for these towns were now kept in strict subjection. If the Persians went so far as to maintain garrisons in the Ionian cities,⁷¹ they would hardly be likely to tolerate a political league among them. Another proof of the League's speedy dissolution is to be found in an inscription⁷² recording the decision of a dispute between Priene and Myus by a court formed under the presidency of Struthas, the Persian satrap whose campaign in 392 B.C. has been noticed above. The reference of this case to a Persian governor shows that the League no longer was in existence, else a suit of this kind would almost certainly have been submitted to its judgement.

VII.—*The League under Alexander's Successors.*

Repeated mention is made of the League in the post-Alexandrine age. It is first alluded to in a rescript of king Antigonos to the city of Teos, dated 306–2 B.C.⁷³ Records of its action are also preserved in inscriptions

⁶⁵ Ll. 249–253: ἀλλ' ἐκαταβόλε Πύθι', ἀγνῶν ἔλθοις τάνδε πόλιν συν ὕλβωι, πέμπων ἀπήμονι λαῶι τῶιδ' εἰρήνην θάλλουσαν εἰνομίαι. Wilamowitz-Moellendorff (*Timotheos von Milet*, p. 63) makes it extremely probable that the λαός here here referred to is the λαός δωδεκατείχης of l. 247; the objections of Croiset (*Rev. Ét. grecques*, 1903, pp. 325–7) to this explanation carry no weight.

⁶⁶ The poem was being quoted among the Asiatic Greeks on the occasion of Agesilaus' campaigns in 396–5 B.C. (Plutarch, *Agesilaus*, 14).

⁶⁷ Xenophon, *Hellenica* iii. 1. 3; Diodorus xiv. 35. Compare the alliance formed after the battle of Cnidus by Rhodes, Iasus, Samos,

Ephesus, and Byzantium.—Hill, *Historical Greek Coins*, pp. 60–62.

⁶⁸ Xenophon, *loc. cit.*

⁶⁹ Diodorus xv. 49. Timotheus (l. 247) speaks of a δωδεκατείχης λαός. But this proves nothing, as his expression was conventional.

⁷⁰ Xenophon, *Anabasis* i. 1. 8.

⁷¹ Isocrates, *Panegyricus* §§ 123, 137, 190.

⁷² *Inscriptionen v. Priene*, No. 458; Collitz-Bechtel, No. 5,493; Tod, *International Arbitration*, No. LXX.; Raeder, *L'arbitrage*, No. XVII.

⁷³ Hicks, 149 (= Dittenberger, *Sylloge*², No. 177; Lebas-Waddington, 86), ll. 1–3: ὅστις δ' ἂν ἐς τὸ Πανιώνιον ἀποστέλληται, οἷόμεθα δεῖν [πρᾶξαι τὰ κοινὰ τὸν ἴσον χρόνον.

belonging respectively to the reigns of Lysimachus (287–1 B.C.),⁷⁴ Antiochus Soter (275–265 B.C.),⁷⁵ and Eumenes II. (c. 113 B.C.).⁷⁶

The reconstitution of the League has been ascribed by Lenschau,⁷⁷ Wilamowitz-Moellendorf,⁷⁸ and Hiller v. Gärtringen⁷⁹ to Alexander himself. This attribution however does not rest on the evidence of any ancient author, and it is not very probable in itself, for Alexander's policy was rather to extend the Pan-Hellenic federation founded by his father than to revive the sectional groupings of the Greek people. Hence he incorporated Asiatic cities in the general Greek League,⁸⁰ but probably did not concern himself with the *κοινὸν τῶν Ἰόνων*.

An argument in favour of the League having been revived in Alexander's time might be based on the existence of a festival called the *Ἀλεξάνδρεια*, which the Ionians celebrated in common from at least as early a date as 265 B.C.⁸¹ It is not altogether impossible that the *Ἀλεξάνδρεια* were instituted in answer to Alexander's request for deification in 324 B.C. But it is at least as likely that they were founded in memory of him at some time after his death.

On the whole, then, it seems more likely that the League was not called into being again until the time of the Diadochi. Whether its revival was due to the spontaneous action of the Ionians or was the work of one of the Successors cannot be ascertained. In favour of the former view it might be said that the Ionians after Alexander's death had good reasons to federate, for in that stormy period their cities might easily become a prey to the contending marshals of Alexander or, worse still, to some petty local condottiere. It is not without significance that in one of the inscriptions above mentioned⁸² the League is represented as taking steps to maintain 'freedom and democracy' in its cities. The alternative to 'freedom and democracy' which they were seeking to prevent was no doubt the rule of some tyrant of the military upstart type. Viewed in this light the action of the Ionians in reviving their confederacy would be quite on a par with the policy of the Aetolians and Achaeans, who renewed and consolidated their leagues about the same time.

On the other hand it is equally possible that the Ionian League owed its renewal to one of the Diadochi. It is particularly tempting to attribute it to Antigonos Monophthalmus. This monarch was in all probability the founder of the neighbouring Cycladic League, which gave him a quasi-legal hold on those islands.⁸³ For similar reasons he

⁷⁴ Michel, 585 (= Dittenberger, *Sylloge*², No. 189); on the date, see Fredrich in *Athenische Mitteilungen*, 1900, p. 102.

⁷⁵ Michel, No. 486. The date has been fixed by Lenschau, *Leipziger Studien*, xii. p. 195.

⁷⁶ Dittenberger, *Or. Graec. Inscr.* No. 763

⁷⁷ *Leipziger Studien*, xii. p. 182.

⁷⁸ *Syllos von Epidaurios*, p. 31.

⁷⁹ *Inscriptionen von Priene*, p. xiii.

⁸⁰ Wilhelm, *Attische Urkunden*, i p. 19.

⁸¹ Michel, No. 486, l. 24.

⁸² Michel, No. 486, ll. 14–17: [παρακαλείτω]σαν δὲ οἱ πρέσβεις τὸν βασιλέα Ἀντίοχον πᾶσαν ἐπιμύλειαν ποιεῖσθαι τῶν πολέων τῶν Ἰάδων ὅπως ἂν τὸ λοιπὸν ἐλευθεραὶ οὔσαι καὶ δημοκρατούμεναι βεβίωσι ἤδη πολίτευονται κατὰ τοὺς πατρ[ίους νόμους].

⁸³ Tarn, *Antigonos Gonatas*, pp. 432–6.

may have decided to reconstitute the League of the Ionian cities, so that his patronage of the League might give him a better legal standing as overlord of its territory.

But whether or not the League started as an independent formation, the Diadochi certainly lost no time in bringing it under their control. Experience had shown in the case of the Lamian League, and was still to show in the case of the Aetolian and Achaean Leagues, that independent bodies of this kind could be very troublesome even to a great territorial sovereign. King Antigonos did not scruple to interfere with a high hand in the affairs of individual Ionian cities, as is proved by the compulsory *συνοικισμός* of Lebedus and Teos.⁸⁴ Lysimachus, besides forcibly transplanting the people of Ephesus,⁸⁵ placed garrisons in the cities,⁸⁶ and the Pergamene kings imposed taxation.⁸⁷ It is hardly likely, therefore, that these rulers left the League entirely to its own devices. King Eumenes put it under monetary obligations to himself,⁸⁸ and Antiochus II even gave it a new constitution.⁸⁹

A clear proof of the dependence of the League on the great territorial kings is afforded by the kind of business which it transacted. Its functions have now become purely sacral and formal. So far as we know, they do not extend beyond the passing of votes of thanks,⁹⁰ the erection of complimentary statues,⁹¹ and the celebration of anniversary games in honour of living or dead monarchs.⁹² The hearing of arbitral suits on behalf of the constituent cities, which probably had been its most useful employment in earlier days, seems to have been discontinued altogether, for cases outstanding between the Ionian cities are now commonly referred to some extraneous power such as king Lysimachus,⁹³ the republic of Rhodes,⁹⁴ the Roman Senate,⁹⁵ or a Roman magistrate.⁹⁶

Owing to the rapid changes in the distribution of power among Alexander's successors, the cities of the League were not always united under one suzerain. The whole of Ionia appears to have fallen into the hands of Antigonos Monophthalmus, and to have passed subsequently into the dominion of Lysimachus. The greater part of the mainland cities next was

⁸⁴ Hicks, 149.

⁸⁵ Strabo xiv. i. 21.

⁸⁶ Michel, 485, ll. 2-4: 'Ἰππόκτρατος Ἰπποδήμου Μιλήσιος, φίλος ὢν τοῦ βασιλέως Λυσι-] μάχου καὶ στρατηγὸς ἐπὶ τῶν πόλεων] τῶν Ἰάδων κατασταθεὶς.

⁸⁷ Cardinali, *Regno di Pergamo*, pp. 88-95.

⁸⁸ Dittenberger, *Or. Græc. Inscr.* 761, ll. 51-5: ὅπως δὲ καὶ εἰς τὸ λοιπὸν ἐν τῇ πανηγύρει τῶν Πανιώνων ἡμέραν ἐπώνυμον ἔχοντες ἡμῖν ἐπιφανεστέραν τὴν ὅλην ἑορτὴν συντελήτε, προσόδους ὑμῖν τὰς ἱκανὰς ἀνα[τίθημι].

⁸⁹ Josephus, *Ant. Jud.* 12. § 125 (ed. Naber): τῶν Ἰώνων κινήσεντων ἐπ' αὐτοὺς (τοὺς Ἰουδαίους), καὶ δεομένων τοῦ Ἀγρίππα ἵνα τῆς πολιτείας ἦν αὐτοῖς ἔδωκεν Ἀντίοχος ὁ Σελεύκου

υἱονός, ὁ παρὰ τοῖς Ἑλλήσι θεὸς λεγόμενος, μόνοι μετέχωσιν.

⁹⁰ Michel, 485 and 486.

⁹¹ Michel, 485, ll. 13-14: στήσαι δὲ αὐ[τοῦ καὶ εἰκόνα χαλκῇν ἐφ' Ἰππου ἐμ Πανιώνι]. Dittenb. *Or. Græc. Inscr.* 763, l. 26: στήσαι δὲ εἰκόνα χρυσῇν ἐν ᾧ ἂμ βούλωμαι τόπω τῆς Ἰωνίας.

⁹² Ἀλεξάνδρεια: Strabo xiv. 1. 31 and Michel 486, ll. 24-5: τῇ πόλει [ἐν ᾗ ἂν συντελέσωμεν τὴν θυσίαν τῶν Ἀλεξανδρείων. Anniversary of Eumenes: see n. 88.

⁹³ Tod, *International Arbitration*, No. LXI.

⁹⁴ *Ibid.* No. LXII.

⁹⁵ *Ibid.* Nos. LXIII.-LXIV.

⁹⁶ *Ibid.* No. LXXIII.

transferred to the Seleucids, and finally was made over to the kings of Pergamum. But the islands and some portions of the mainland, after a brief occupation by Demetrius Poliorcetes, eventually fell into the hands of the Ptolemies.⁹⁷ It is very doubtful whether under these circumstances the Ionian League maintained its integrity for long: probably the number of its constituent cities fluctuated considerably. The number of federating towns was also affected by such events as the *συνοικισμός* of Lebedus and Teos in 306—2 B.C., and the destruction of Colophon and Lebedus in 287 B.C. Nevertheless the total of thirteen cities, which had been attained under king Lysimachus by the addition of New Smyrna to the twelve members of the sixth and fifth centuries, survived all the vicissitudes of the League and remained a consecrated number down to the latest period of its existence.⁹⁸

Concerning the constitution of the League in the third and second centuries B.C. we are comparatively well informed. The federal business was transacted by a *βουλή* of delegates appointed, we know not on what system, by the constituent cities.⁹⁹ There is no trace of a federal *ἐκκλησία*, and in view of the formal character of the League it is unlikely that such a body existed. The most important function of the *βουλή* consisted in its communications with the monarchs who acted as protectors of the League,¹⁰⁰ and with the monarchs' residents in the various cities.¹⁰¹ In addition, it administered the federal festival at Mycale.¹⁰² Pursuant to this business, it had powers to receive and send envoys,¹⁰³ to strike coins,¹⁰⁴ and to impose certain tasks on the constituent cities, such as the publication of federal decrees,¹⁰⁵ the execution of buildings and statues,¹⁰⁶ and the bestowal of immunities upon friends of the League.¹⁰⁷ The most remarkable of these prerogatives are the last three, which imply a considerable power of interference in the finances of the federating cities. Nevertheless the part played by the federal *βουλή* was not by any means overbearing. We have already seen that it lacked military and judicial powers.¹⁰⁸ Its financial position likewise was not enviable. The profits derived from its mints and from tolls which

⁹⁷ See Beloch, *Griechische Geschichte*, iii. Pt. 2, pp. 271-9, and the maps at the end of the volume.

⁹⁸ Head, *Historia Numorum*², p. 566. Michel, 485, l. 1: ἔδοξεν Ἰώνων τῷ κοινῷ τῶν τρεῖς καὶ δέκα πόλεων.

⁹⁹ Michel, 486, l. 8: [ἐλέσθαι μὲν ἐκ τῶν συνέδρων δύο ἀφ' ἐκάστης πόλεως πρέσβεις].

¹⁰⁰ Michel, 486 (in honour of Antiochus Soter).

¹⁰¹ Michel, 485 (in honour of an officer of king Lysimachus).

¹⁰² This may be inferred from the words of Dittenb. *Or. Graec. Inscr.* 763, quoted in n. 88: if king Eumenes offered to the League to pay part of the expenses of the festival, it follows that the League had charge of the festival.

¹⁰³ Michel, 486, l. 8 (see n. 99); Dittenb.

Or. Graec. Inscr. 763, l. 31.

¹⁰⁴ *Catalogue of Greek Coins in British Museum: Ionia*, p. 16. Head, *Historia Numorum*², p. 566.

¹⁰⁵ Michel, 485, ll. 21-5: ἀνεργεῖν δὲ ἐκάστους τῶν βουλευτῶν τὰ ἐγνωσμένα ἰώσι εἰς τὰς ἰδίας πόλεις, ὅπως ὑπά[ρχη] ἐν τοῖς δημοσίοις ἀναγεγραμμένα τὰ ἐγνωσμένα ὑπὸ Ἰώνων.

¹⁰⁶ Michel, 485, ll. 20-25: ἐλέσθαι δὲ πόλεις δύο ἥδη, αἵτινες ἐπιμελή[σονται] ὅπως ἀν' ἡ εἰκὼν ἡ ἱπποστρατοῦ σταθῇ κατὰ τάχος.

¹⁰⁷ Michel, 485, ll. 11-12: εἶναι αὐτὸν ἀτελεῖ πάντων ἐν ταῖς πόλεσι ταῖς τῶν Ἰώνων. *Inscrts. in Brit. Mus.* 426, l. 8: ἀτελεῖς δ' ἔσται π[ά]ντων, κάθαπερ καὶ ἐν τῇ στήλῃ ἀναγράφεται. *Ibid.* No. 427, l. 3.

¹⁰⁸ See above, p. 185.

may have been levied at the Panionium would perhaps suffice to defray the outlay upon that festival and the official inscriptions set up on its site. Extraordinary expenditure, *e.g.*, for the making of statues, had to be passed on to one or other of the constituent cities, and the burden of publicly entertaining distinguished guests appears to have devolved permanently upon Priene, in whose territory the Panionium was situated and the *βουλή* held its sessions.¹⁰⁹ In return, Priene had the right of appointing the priest who officiated at the federal festival.¹¹⁰

The *βουλή*'s powers were also rendered nugatory in a large degree by the wide discretion which the federating cities kept in their own hands. Not only did they undertake in turn such formal duties as the celebration of the *Ἀλεξάνδρεια*,¹¹¹ but they frequently kept up independent communication with foreign powers and referred their disputes for arbitration to any one but their Federal Council.¹¹²

Of the constitution granted to the League by Antiochus II nothing is known.

VIII.—*The League under Roman Dominion.*

In view of the fact that the Romans usually suppressed all associations of cities in newly conquered countries, one might have expected the Ionian League to disappear in 129 B.C., when the west of Asia Minor was finally annexed by Rome. As a matter of fact the *Ἰωνίῳνα* are proved by inscriptions¹¹³ to have survived into the 1st century B.C. But it would be surprising if the League had outlasted the stormy period of the First Mithridatic War and the punitive settlement imposed by Sulla in 85/4 B.C. Accordingly at this date the record of the League's activity comes to a stop.¹¹⁴

But the period of suspended animation did not last long, for in the days of the Emperor Augustus the League was once more revived, in common with all such associations.¹¹⁵ Its further existence is attested in the age of Domitian,¹¹⁶ of Antoninus Pius¹¹⁷ and of Septimius Severus.¹¹⁸ We may therefore conclude that it survived until the general collapse of public institutions under the stress of the Gothic invasions of 250—260 A.D.

The number of cities now included in the League is uncertain, though the theoretical total once again was fixed at 13.¹¹⁹ Membership of the

¹⁰⁹ *Inscripfen von Priene*, Nos. 4, ll. 35, 6; 8, l. 39; 18, l. 5; 34, l. 4; 103, l. 11; 108, ll. 6, 322; 109, ll. 8, 9; 110, ll. 3, 4; 113, ll. 6, 7, 109; 174, ll. 7, 8.

¹¹⁰ Strabo xiv. 1. 20.

¹¹¹ Michel, 486, ll. 24-6: τῇμ πόλιν [ἐν ᾗ] ἂν συντελέσωμεν τὴν θυσίαν τῶν Ἀλεξανδρείων [παρακαλεῖν πάντας τοὺς δήμους].

¹¹² See the cases quoted in nn. 93-96.

¹¹³ *Inscr. v. Priene*, Nos. 108-110, which belong to the period 129-88 B.C.

¹¹⁴ *Inscr. v. Priene*, No. 113, is dated by

Hiller as subsequent to 84 B.C. But the chronological indications in the inscription are hardly sufficient to establish this point.

¹¹⁵ Josephus, *Ant. Jud.* 12. § 125 (referring to Agrippa's sojourn in Asia Minor 23-21 and 17-13 B.C.); Strabo viii. 1, 2; xiv. 1. 31.

¹¹⁶ *Life of Apollonius of Tyana*, iv. 5.

¹¹⁷ *British Museum Catalogue of Coins: Ionia*, p. 16.

¹¹⁸ Philostratus, *Vitae Sophistarum*, ii. 25.

¹¹⁹ Head, pp. 566, 571.

League was still considered a privilege, from which the Ionians sought to exclude aliens.¹²⁰ But the practical importance of the League was now less than ever. The last remnants of its political functions passed over to the larger *κοινὸν τῆς Ἀσίας* founded by Augustus, and its character became entirely sacral, as is shown by the prominence which accrued to an official known as the *Ἀσιαρχὸς καὶ Ἀρχιερεὺς τῶν ὑφ' πόλεων*. In its religious functions moreover it was overshadowed by the more splendid ceremonies of the *κοινὸν τῆς Ἀσίας*, whose chief official, as we have seen, the Ionian League imitated in its *Ἀσιαρχὸς καὶ Ἀρχιερεὺς*. Furthermore the federal festival was much exposed to the competition of municipal deities and ceremonies which freely usurped the name *Πανιώνια*.¹²¹ In fact, it is tolerably clear that in its later days the Ionian League was devoid of any meaning, and that its festivals subserved the purpose of mere amusement untinged by pan-Ionian patriotism.

M. O. B. CASPARI.

¹²⁰ Josephus, *Ant. Jud.* 12. § 125 (see n. 89 above). When the Ionians petitioned Agrippa to 'exclude the Jews from the constitution' they were no doubt thinking of various immunities enjoyed by the members of the League.

¹²¹ 'Πανιώνια' on coins of Ephesus: Head, p. 577; do. on coins of Smyrna: Head, p. 594. 'Πανιώνια Πύθια' on coins of Miletus: Head,

p. 586. A still more impudent claim was made by the city of Colophon, which not only dubbed the Clarian Apollo *Πανιώνιος Πύθιος* (*I.G.* iii. 175), but issued coins with figures of the thirteen federating cities engaged in sacrifice before the temple of Apollo Clarius and the legend *ΤΟ ΚΟΙΝΟΝ ΤΩΝ ΙΩΝΩΝ* (*B. M. Catalogue*, Pl. VIII. 16).

THE BAZZICHELLI PSYKTER OF EUTHYMIDES.¹

[PLATES V., VI.]

THE number of vases which have disappeared in the last twenty years since they first were published is all too large, as a cursory glimpse of the pages of Klein's *Meistersignaturen* will show. Consequently it is a cause for gratification when from time to time one of their number is rediscovered and finds shelter within the confines of a good museum, its wanderings over. To this list we may add the psykter signed by Euthymides formerly in the collection of Signor Bazzichelli at Viterbo, which after being lost for several years is now in the Archaeological Museum in Turin (Fig. 1).²

The credit for its discovery belongs to Professor G. E. Rizzo of the University of Turin, who has with extreme generosity resigned his claims to publication in my favour, and to whom I am greatly indebted for the facts connected with its discovery as well as numerous technical details, a personal examination by me having proved impossible. The excellent drawings by Sig. Baglione (Plates V., VI.) are, so Professor Rizzo informs me after a most careful comparison with the original, exact and accurate in every detail. In 1907 he, while sorting a number of fragments put away in a store-room of the Museum, came across some belonging to a large vessel which after being put together proved to be the long-lost psykter. A comparison of the plate in the *Annali* shows that none of the fragments are missing since the vase was first published. No documentary evidence is to hand as to its provenance or the date of its transfer to the Museum. The most

¹ The following article is taken for the most part from the new edition of Euthymides I have in preparation, the earlier one published in 1896 being now thoroughly out of date. As the vase is an important one, it deserves the honour of a separate publication, especially as it is possible to present for the first time an accurate drawing of it to replace the very inaccurate one formerly published in the *Annali dell' Istituto* for 1870.

² Originally published by Klügmann, *Ann. d. Inst.* 1870, pp. 267-271, Pls. O, P. The drawings are execrable, and give a very un-

satisfactory idea of either the figures or style. Since then quoted by Klein, *Die Griechische Vasen mit Meistersignaturen*, p. 196, No. 7; Hoppin, *Euthymides*, p. 2, B. It seems probable that Klein's statement (*l.c.* p. 222), 'von einem Gefässe dieses Meisters (Euthymides) im Museum zu Turin erhalte ich von J. E. Harrison Mittheilung doch ohne nähere Angabe des Gegenstandes' refers to the psykter, as there is no other vase by Euthymides, or (as far as I know) in his style, in the Turin collection.

probable explanation is that it was purchased from the Bazzichelli collection (which, as far as we can discover, was disposed of in the early eighties) by Professor A. Fabretti, a former Director of the Museum and an enthusiastic collector who had bought many objects in the vicinity of Rome.

The form of the vase, save for the addition of the two handles, is practically the same as the Hetaerae Psykter by Euphronios in Petrograd (Furt.-Reich. ii. Pl. 63). Its height is m. 0.343: greatest diameter



FIG. 1.—PSYKTER AT TURIN.

m. 0.272. The base is separated from the pedestal by a single moulding, and there is a slight moulding at the junction of the shoulder and neck, which is provided with a flange doubtless to hold a cover now missing (Fig. 2). At the top of the shoulder is a tongue pattern encircling the entire vase, and below and at the sides of each of the two handles five palmettes combined which form the division between the two sides separating them into two groups of two figures each. A single stripe of purple paint

forms the lower border, but rather carelessly executed, since it actually passes through the feet of the figures of the obverse.

On the obverse (*A*) two nude youths wrestling; the one on the left has a strangle-hold with his l. around the neck and r. shoulder of his opponent, who totters forward, both his hands clenched together like

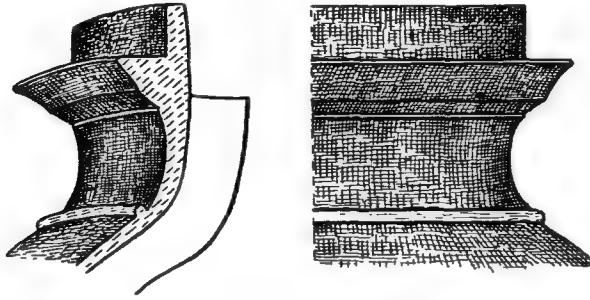


FIG. 2.—MOULDING OF NECK.

Theseus on the Munich amphora 410. To the r. of the head of the l. h. figure $\Theta\epsilon\varsigma\epsilon\nu\varsigma$, between his legs $\epsilon\nu\lambda\epsilon\ \text{NAIXI}$ (retrograde: the last two letters run into and under the stripe of the border). Between the two wrestlers $\kappa\lambda[...]\text{ON}$ (retrograde). To the r. of the r. h. figure

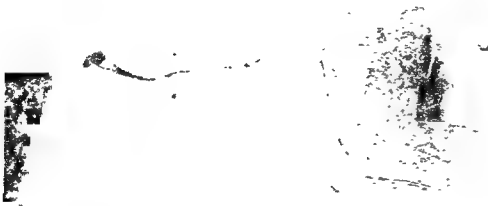


FIG. 3.—DETAIL OF *A*.

$\epsilon\nu\theta\upsilon\mu\iota\delta\epsilon\varsigma\ \epsilon\lambda\pi\alpha\theta\epsilon\nu$ in two lines and between his legs $\text{HO } \Gamma\text{OVIO}$ (Fig. 3).

On the reverse (*B*) two nude youths to left (each with a flower wreath in his hair) engaged in scraping themselves with strigils.³

³ Though the r. forearm of the l.h. youth is missing, there can be little doubt as to the action.

Between them a pickaxe (*dikella*) and at the left of the group a mattock (*skapane*), both favourite tools with athletes for preparing the soil for jumping. Between the two figures $\Phi\Delta\nu\lambda\omicron\varsigma$ (retrograde); below in three lines $\epsilon\nu\omicron\nu\mu\iota\delta\epsilon[\varsigma]\ \eta\omicron\pi\lambda\iota\omicron$ (*sic*). To the l. of the l. h. youth (also retrograde) $\omicron[\dots]\omicron\pi\alpha$.

Faint lines are used for the anatomical details of all the figures and purple paint for the inscriptions, lower border stripe, shoulder moulding and two more stripes, one half way up the neck and the other just below the flange of the rim. The handles are in the natural red of the clay. Part of the l. h. figure and most of the palmettes on B and a few unimportant spots on A have been restored, but the vase is, on the whole, in fairly good condition.

Of the four figures two can be identified with perfect certainty. One is Theseus and evidently some exploit is represented; on the reverse is an athlete, Phayllos, so that we most probably have a mere athletic scene with no mythological significance. Unfortunately both the other figures have lost the important parts of their inscriptions and can only be identified by conjecture.

Since we have Theseus on the obverse wrestling with an opponent it has usually been assumed that his adversary is Kerkyon. But by no possibility can we read the fragmentary inscription $\kappa\lambda[. . .]\omicron\eta\varsigma$ as Kerkyon. Not only is it doubtful whether the last letter is to be read as a η or a ς (the former seems more probable since the inscription is retrograde) but the second letter is most certainly not E. It may be λ or ν . It cannot be an α and as the space requires three letters *καλός* is ruled out. The only plausible combinations are, as Klügmann has suggested, *Κλείτος* or *Κλύτιος*, but neither of these names, though not unknown to Greek mythology, has any connection whatsoever, as far as we know, with the Theseus legend. Kerkyon is the only adversary who would be suitable in a wrestling bout, since all the other adversaries of Theseus—Prokrustes, Sinis, Skiron and the Minotaur—have some definite attribute to distinguish them.

Pottier⁴ has suggested that the inscriptions may have been added by workmen or apprentices and not by the artists themselves. Considering that on this vase we have a mistake in the signature and another on the Munich amphora 374 (Furt.-Reich. ii. Pl. 81, pp. 108—111), as well as some senseless inscriptions, and that repeated mistakes occur in the signatures of both Pamphaios and Phintias, this suggestion is certainly plausible. I am inclined to think, as the only reasonable explanation, that Kerkyon was meant after all and that whoever painted the inscription did it carelessly and wrote $\kappa\nu\pi\kappa\nu\omicron\eta\varsigma$ instead of $\kappa\epsilon\pi\kappa\nu\omicron\eta\varsigma$.

So with the figures on the reverse. Phayllos, of course, offers no difficulty, since he occurs on the Munich amphora 374 as well as on the

⁴ *Cat. des Vases du Louvre*, iii. p. 696.

British Museum amphora which I have assigned to Euthymides in my essay (p. 22. v. Pl. VII.). Hauser's identification of this name as that of the celebrated athlete of Croton (*Jahrb. des Inst.* 1895, p. 110: Furtwängler supports this view in *Furt.-Reich.* ii. p. 111, note 2) seems to me entirely justified. But the name of the second figure is distinctly puzzling. The first letter is certainly \omicron and the last three letters $\omicron\rho\Delta$ which will not do for a masculine name. On this account Klügmann⁵ wished to read a sentence ending with $\delta\rho\alpha$ ('see').

Now assuming, as is most probable, that the same spacing existed in the break which is employed in the other inscriptions, we have room for just seven letters, and since further three of the four figures are certainly identified by names the probabilities are that this inscription represented a name as well. I can find but one combination to fit and that is $\omicron[\lambda\nu\mu\pi|\omicron\Delta]\omicron\rho\omicron\varsigma$.⁶ That is to say the painter of the inscriptions wrote Olympiodora by mistake for the masculine form. This name occurs 1 on a b.f. hydria in the Museo Gregoriano (ii. 14. 2b. Klein, *Meistersig.* p. 130. No. 1) where it is written $\omicron\lambda\nu\pi\omega\delta\omicron\rho\omicron\varsigma$ together with the name of Leagros: 2, on a r.f. kylix in the Cabinet des Médailles in Paris (Klein, *Lieblingsinschr.* p. 70. 1.; Hartwig, *Meisterschalen*, p. 132) from which owing to restoration the names have almost entirely disappeared, together with the name of Antias. This last again with Leagros is found on the fragmentary hydria in Dresden (Hermann, *Arch. Anz* 1892, p. 165) commonly assigned to Euthymides. This identification is, of course, purely conjectural and I could wish it were more satisfactory, since it involves the assumption that here too did the painter or apprentice make a mistake and write the feminine form.⁷ However the triple combination on vases of this period of Olympiodoros-Leagros, Antias-Olympiodoros and Antias-Leagros is quite Euthymidean and perfectly suitable. I offer it however, with some diffidence in default of a better suggestion.

As to the signatures little need be said, since the mistakes have already been commented on. The addition of $\epsilon\upsilon\gamma\epsilon\ \nu\alpha\iota\chi\iota$ is very characteristic of Euthymides, who seems to have taken a peculiar satisfaction in his work and

⁵ *L.c.* p. 269. Furtwängler's suggestion for the senseless formula $\epsilon\iota\delta\omicron\nu\theta\epsilon\mu\epsilon\nu$ on Munich 410 (' $\epsilon\iota\delta\omicron\nu : \theta\epsilon\omega\mu\epsilon\nu$ ') might be considered in line with this. *v. F.R.* i. p. 176.

⁶ While I do not wish to discuss here the question of $\kappa\alpha\lambda\acute{o}\varsigma$ names, it is certainly striking that so many of them—Megakles, Hipparchos, Leagros, and Phayllos—to mention only a few, should coincide so patly with prominent figures of Athens and at this time 'men about town.' I see no reason why we should not recognise here a reference to Olympiodoros, son of Lampon and probably father of Lampon, co-founder of Thurii (Thuc. v. 19, 24), soothsayer and

friend of Perikles. This Olympiodoros, as Herodotos tells us (ix. 21), with three hundred Athenian troops defended a dangerous corner at the outpost of Erythrae just before the battle of Plataea, in the course of which skirmish Masistios was slain (cf. Busolt, *Griech. Ges.* ii. p. 727). The date of our vase certainly coincides with the youth of Olympiodoros if he was a general at Plataea.

⁷ Can it be possible that the proprietor of the atelier was Hauser's 'Frau Meisterin' and Euthymides, her workman and swain, wrote the name of his lady-love by mistake?

advertised its quality—as shown by the celebrated inscription *ὡς οὐδέποτε Εὐφρόνιος* on his amphora in Munich 378.

I do not propose to discuss his style except to add a few details which were omitted in my earlier essay. A careful measurement of all the figures on the existing signed vases (as well as the Munich amphora 410 which though unsigned is universally admitted to be by his hand) shows that he never varies from the proportion of having the heads of his figures one seventh, or a trifle less, of the height. As this proportion is always preserved it is safe to conclude that it does not vary in his unsigned work and permits us to reject any vase showing a different scale. Further in every unsigned vase which can reasonably be attributed to his hand I have found no change. Characteristic is the entire absence of both finger and toe-nails, which do not exist in any signed vase. A particularly Euthymidean feature is the triple division of the scrotum (cf. Munich 378 and 410) which I have never seen in the work of any other master.

If the drawing of the obverse be examined carefully it will be seen that the line of the body and l. leg of Kerkyon from armpit to heel is very broken and irregular. This is so strange and so contrary to the technique of the period that one might almost assume it is due to careless copying by the maker of the drawing. Professor Rizzo, in reply to a question on this point, has kindly sent me a photograph of this detail (Fig. 3) and writes me as follows:

‘Ho esaminato il vaso e se Lei osserva bene la fotografia che Le mando, la irregolarità nel polpaccio della gamba sinistra di Kerkyon esiste; anzi nel vaso originale *si vede di più* per il contrasto del nero sul rosso del fondo.’ We must therefore regard this as a fact, though it is certainly unusual; I cannot recall a similar instance on any signed vase, and the only suggestion I can offer is that even though a master signed a vase, certain details such as filling in the background, etc., may have been left to the apprentice. In fact, this feature, together with the careless drawing of the border stripe through the feet and the inaccurate inscriptions, would seem to corroborate the suggestion of Pottier’s mentioned above.

I had hoped to be able to present a sketch of the ‘preliminary drawing’ of the vase, but Professor Rizzo has informed me that this sketch which was done for him some years ago cannot be found, though he still has hopes that it may reappear.

Save in a few details the palmettes are similar to those on the upper border of the obverse of Munich 378, and have nothing to distinguish them from those used by all the artists at this time.

As for the date of the vase, I should be inclined to consider it as contemporaneous with the three Munich amphorae, 374, 378 and 410. The Bocchi plate and the Bonn hydria are certainly the two earliest examples of Euthymides’ work, for, apart from the style, the use of the imperfect *ἔγραφε* in the signature shows that Euthymides is still working in the Epiktetan cycle. Stylistically there is nothing to distinguish the psykter from the

amphorae, and it is difficult to decide which is the earliest of the four. We shall probably not be very far wrong if we assign all of them to the first decade of the fifth century.⁸

J. C. HOPPIN.

⁸ Since Euthymides uses the *καλός* name of Phayllos and it is generally agreed that this refers to the celebrated athlete of Croton who commanded a ship at Salamis, it is obvious, as Furtwängler has pointed out (*F.R.* ii. p. 111), that it will not do to separate the activity of Euthymides too far from the year of that event. On the other hand it is unsafe to place him too far away from the Epiktetan cycle in which he certainly worked.

ON THE DATE AND ORIGIN OF MINYAN WARE.

MR. FORSDYKE in his brilliant article on this subject was unfortunately unable to make use of the important results of Dr. Soteriadhis' recent excavations in Phocis. The site explored near Dhrakmani on the estates of Messrs. Piperis and Ghiannakopoulos has greatly increased our knowledge of the forms of this pottery, supplying just the evidence Mr. Forsdyke requires as a test of his theory. The exploration of the mound near Hagia Marina in the same district serves to supplement the unpublished results from Orchomenos in Boeotia. Now, however, by the kindness of Dr. Soteriadhis I have been able to see the material in the Chaeronea Museum. It will accordingly be interesting to review Mr. Forsdyke's theory in the light of these new finds.

In the large mound of Hagia Marina the excavator has been able to distinguish three main strata.¹ Below the disturbed layers containing modern sherds, came a stratum one metre thick, containing Mycenaean (L. M. III.) sherds mixed with Minyan ware. Immediately below this, the pottery called by Furtwängler at Orchomenos Kamares began to appear. At first apparently Minyan and 'Early Mycenaean'—by this I suppose is meant the northern variety of Mattmalerei—occur with it plentifully, but towards the bottom of the layer these disappear. This stratum was $3\frac{1}{2}$ m. thick. Finally there was found a 'neolithic' deposit varying in thickness from $3\frac{1}{2}$ to 5 ms. In the upper layers of this, a ware with matt paint which is mingled with a few stray Urfinis sherds, is the typical ware, but at the bottom a little red-on-white 'Thessalian ware' (A 3β) appears.²

It seems in the first place as if the neolithic settlement here began late, as this A ware is so scarce. On the other hand the wares with matt paint on a light ground are exceptionally plentiful. These correspond to those classed by Wace and Thompson as B3δ, B3ε and B3ζ. The ground is sometimes polished, and varies from very pale buff to orange red. The paint is black or red, and sometimes both colours occur together. These wares also occur in considerable quantities in the First Settlement at Orchomenos. This stratum at Hagia Marina does not seem to have been truly

¹ See the excellent publication in *Revue des Études Grecques*, 1912, pp. 260 ff.

² I could find very little of this in the museum. It is of the Chaeronea variety.

neolithic, since at several different places on virgin soil the excavator found³ objects of copper, including two daggers⁴ of the Early Minoan type. These may of course belong to the B period, but there is no reason to think they could have fallen in from the succeeding settlement. With these, however, were found obsidian flakes, bone needles and celts, very few of which were bored.

The end of the 'neolithic' occupation is marked by a sudden change in the pottery. In the next stratum the so-called Kamares was discovered in huge quantities. This, as the excavator points out, bears no relation to the Middle Minoan ware, but is in reality the same as the pottery called at



FIG. 1.—MINYAN POTTERY FROM PIPERIS IN PHOCIS.

Orchomenos Urfinis, except that it has linear designs in matt white super-added.⁵ These patterns include simple bands, stars, and hatched triangles, but the lattice-filled band (see Fig. 2*a*) is commonest of all. It arises from filling up the simple band with a running lattice pattern. This design, as Dr. Soteriadhis points out,⁶ occurs in Crete in the third Early Minoan period.

³ *Loc. cit.* p. 276.

⁴ *Ib.* Fig. 15.

⁵ *Ib.* p. 231.

⁶ *Loc. cit.* I compare Seager, Mochlos, Fig. 49, No. 59 and *University of Pennsylvania, Sphoungara*, Fig. 23 c.

The butterfly pattern is also a favourite Cretan motive. The paint of the ground varies from black to reddish brown. Exactly the same variations of tone are found in the light-on-dark E. M. III. ceramic of Crete.⁷ Sometimes parts of the surface are left unpainted.

Most of the shapes are definitely askoid, as is usual with the northern Urfirnis. Very typical are the large jugs, one of which is seen in Fig 2. These immediately recall the duck vases of the Cyclades. A very close parallel is afforded by a vase from Phylakopi I. with 'geometrical designs in lustrous paint' now in the Athens Museum.⁸ The other duck vases and the Early Minoan spouted vases are related but more distantly. All belong to the second and third Early Minoan periods. Next in frequency come large mugs with two band handles set low (Fig. 2*b*).⁹ Some Urfirnis mugs from Tiryns that I saw in the Nauplia Museum are very similar. There are also several cups with band handles.¹⁰ There are besides some large spherical



FIG. 2.—URFIRNIS WARE WITH DESIGNS IN WHITE PAINT FROM HAGIA MARINA.

pithoi with short necks and two vertically pierced lug handles set half-way down. In one instance the lower half of the vessel is unpainted. The same shape is found in the Urfirnis pithoi from Orchomenos II. exhibited in the Chaeronea Museum. With this ware must be mentioned several vessels in ordinary Urfirnis of the askos shape.¹¹ Dr. Soteriadhis says that in one test pit monochrome vase fragments intervened between the 'neolithic' and Urfirnis strata. There are a few badly burnt mud-coloured cups in the museum, one closely resembling in shape the cups found under the Heraeum at Olympia.¹²

There was apparently no sharp division, such as occurred at Orchomenos and Lianokladhi, between the Urfirnis and the Minyan layers of the second

⁷ This is well seen on the sherds in the British Museum.

⁸ *Phylakopi*, Fig. 74.

⁹ *Rev. Ét. Gr. loc. cit.* Fig. 12.

¹⁰ *Ib.* Fig. 13, No. 1, top row.

¹¹ *E.g. loc. cit.* Fig. 13, No. 4, in row 1.

¹² *Ath. Mitt.* 1911, p. 163.

deposit. However, the latter ware became more plentiful towards the top. It is probably to this upper portion that a two-handled goblet of Lianokladhi 'Geometric' ware must be assigned. It is identical in shape with those figured in Wace and Thompson's publication (Fig. 126*c*, and *d*), and is undoubtedly an importation from the Spercheios site. It is worth noting that there was little which could definitely be called Mattmalerei visible.

For purposes of chronology the Cretan parallels are valuable, as they confirm the dates obtained from the occurrence of Minyan ware in Melos and Orchomenos. They give for the Urfirnis layers at H. Marina which represent a pure bronze or copper age culture, as the rarity of stone implements shows, an approximate date of E. M. III. This agrees with the fact that Urfirnis first occurs in the Cyclades in an E. M. III. context. Thus it is found with the developed incised wares and wares with 'geometric designs in lustrous paint' in the tombs of Syra¹³ and Naxos,¹⁴ but not in the earlier cist graves of Amorgos or in Paros. It has more recently been discovered in the lower levels of Phylakopi I.¹⁵ As articles (idols, etc.) belonging to the same stage of Cycladic culture have been found in Crete in a context¹⁶ dateable definitely to the Third Early Minoan period, there is little doubt that they are roughly contemporary. Moreover, from Orchomenos II,¹⁷ which is parallel to the lower levels of the second stratum at H. Marina, comes a cup of Trojan shape identical with several from the above-mentioned tombs of Syra.¹⁸ The date thus obtained for the beginning of the Urfirnis period in Central Greece agrees very well with that inferred for the beginning of the Minyan culture from the appearance of that ware in Melos. Careful observations taken during the second excavations at Phylakopi have shown that the genuine grey ware begins to be imported¹⁹ at about the same time as the Cretan Kamares. From this period date about 73 per cent. of the fragments, while the importation of the ware continued into L. M. II. But the date thus obtained for the commencement of imports (about M. M. II) gives only a terminus *ante quem* for the beginning of its manufacture in the centre of distribution. This, for the mainland of Greece at any rate, is certainly northern Boeotia and Phocis, for only in these districts do we find any large quantities of the ware and any number of varieties of shape.²⁰ At the Aspis and Aegina settlements only imitations seem to have been manufactured.²⁰ Accordingly the first appearance of the ware in Central Greece must be put at least as early as the first imports

¹³ 'Εφ. 'Αρχ. 1899, pp. 77-115.

¹⁴ Πρακτικά, 1904, 1905, and 1906.

¹⁵ B.S.A. xvii. p. 16.

¹⁶ E.g. at Koumasa.

¹⁷ The material though unpublished is visible, more or less chronologically arranged, in the Chaeronea Museum.

¹⁸ 'Εφ. 'Αρχ. 1899. Pl. IX. 7 and 11.

¹⁹ 'It is utterly different from anything of

which the clay of Melos was capable, it could never pass at Phylakopi for anything but an imported fabric.' (B.S.A. xvii. p. 17.)

²⁰ In the tombs excavated by Tsountas at Dimini and Sesklo, belonging definitely to the bronze age a considerable quantity has been found. These cist graves are typical of Minyan burials and probably point to a Minyan occupation, see Διμήνη και Σέσκλο, pp. 126 ff.

into Melos, say, the beginning of M. M. II., or 1900 B.C. in round numbers, Thus we get the beginning of Orchomenos III., the Minyan settlement,²² coinciding with M. M. II., while that of the Urfirnis stratum is contemporary with E. M. III. This seems very probable in view of the moderate length of that occupation. To the same time must belong the beginning of the Urfirnis deposit of H. Marina and of Lianokladhi II.

Now in the lowest stratum at H. Marina and in Orchomenos I. the pottery of the first two Thessalian periods is represented. In the Orchomenos case at Chaeronea Museum the following wares are displayed as coming from the bottom or Rundbautenschicht: polished red-on-white, A3β; polished black ware with knobs, A5γ; wares with matt paint on buffish ground, B3δ, B3ε, and B3ζ; and polished black with white paint, Γ1α1, with its other 'scraped' variety, Γ1α2. (A glance at the stratification table of Tsangli²³ will show that the latter wares are wrongly assigned by Tsountas to the third period. They occur in the second period with B3δ and B3ε.) Pending the publication of the material from Orchomenos it may be suggested that the A wares came from the mud huts without stone foundations, of which the Bavarian expedition found traces below the stonework of the round huts.²⁴ Judging from the quantities found in the Chaeronea Museum, the B wares were more plentiful. The stratification at H. Marina is, as we have seen, quite parallel to that at Orchomenos. At Lianokladhi, on the other hand, some break is possible between the first and second occupations, as only a very few sherds of B wares were found. Since, then, the 'neolithic' period at Orchomenos and H. Marina ends about the beginning of E. M. III. we must equate Thessalian neolithic with the beginnings of the bronze age and last phases of the neolithic periods in Crete. The B period in Thessaly is certainly short, and may have begun there later than in the south. At least the matt B wares are very plentiful in Central Greece, and extend as far south as Corinth,²⁵ so that it looks as if Phocis or Boeotia were their place of origin. On the other hand, the A culture probably began later in Central Greece, since Thessaly is certainly its home.

Keeping these possibilities in mind it will be seen that the dates here proposed really agree very well with the results obtained in Thessaly itself though they put the series further back than Messrs. Wace and Thompson writing before the second excavations at Phylakopi propose.²⁶ Thus at Zerelia A wares occupy the first four periods, but besides rare sherds of B wares (including Dimini ware) beginning in the third period we have only the monochrome Γ3 to occupy the long period till Minyan, L. M. III. and

²² In view of the mainland finds, I incline to the Berlin date for the XIIth Egyptian dynasty.

²³ This was a very long occupation, showing three distinct architectural periods (Bulle, *Orchomenos*, p. 53). This will serve well to bring the end down to L. M. II. or III.

²⁴ *Prehistoric Thessaly*, Fig. 63.

²⁵ Bulle, *Orchomenos* (vol. i.), p. 19.

²⁶ Mr. Wace tells me he has seen these sherds from the excavations of the American School.

²⁷ *Prehistoric Thessaly*, p. 235 f. and Fig. 131.

early Geometric wares begin to appear in the eighth layer.²⁷ Again at Tsani the first three settlements²⁸ are marked by A wares. In the second and third B wares are also common. In the fourth a little Urfinis is found but till the appearance of Minyan in the eighth the settlements are only represented by sherds of Γ3. Tsangli seems to have been partially deserted during the end of the third and beginning of the fourth periods, so cannot be relied on. But Rakhmani is also confirmatory.

We thus get the following table for the chronology of the Northern Series.

CRETE.	Neolithic	E. M. I.	E. M. II.	E. M. III.	M. M. I.	M. M. II.	M. M. III.	L. M. I.	L. M. II.	L. M. III.
ORCHOMENOS STRATA	First		Second		Third				Fourth	
	A3 β1	B3 δ	Urfirnis		Minyan and Mattmalerei				Mycenean	
H. Marina	Chalcolithic deposit		Premycenean deposit.		Bronze age				Mycenean	
	A3 β	B3 δ	Urfirnis		Minyan					
Lianoklathi	Neolithic I.		Settlement II.		Settlement III.		Site			
	Red on white		Urfirnis		Hand made Geometric		Deserted			
W. Thess.	Neolithic I.		Neolithic II.		Chalcolithic periods				Mycenean influence	
	Red on white		B3 δ		Monochrome ware Γ3					
E. Thess.	Neolithic I.		Dimini culture		Chalcolithic periods				Minoan influence	
	Red on white				Crusted wares				Γ3 Minyan burials	

It has been important to find a limit for the beginning of the Minyan occupation in Central Greece in view of certain chronological difficulties in Mr. Forsdyke's theory. Now however having shown that we may suppose this occurred during the earlier part of M. M. II., say 1,900 B.C. at latest, we may go on to consider the shapes recently unearthed in the district in question. The most important come from the site which we may call Piperis after the owner of part of the estate in which the deposit was

²⁷ *Prehistoric Thessaly*, p. 159 and table.

settlements destroyed by fire, *ib.* p. 135.

²⁸ Eight layers were found—apparently

discovered. Dr. Soteriadh's found no stratification but believes the site a sort of necropolis.²⁹ The interest, however, of the site lies rather in the large number of complete Minyan vessels found.

Before these discoveries the only Minyan forms known in Greece were cups or goblets. This makes Mr. Forsdyke ask where are the jars and jugs?³⁰ We now know that it is unnecessary to go to Troy for the answer. The finds from Piperis include these and all are in the genuine grey bucchero which Mr. Forsdyke rightly calls the true Minyan. A group of the vessels as they stand in the Chaeronea Museum is shown in Fig. 1. It is true that all have been slightly restored but in every case the restoration is absolutely certain. In the first place, they show that the cup with 'high swung' handle, to use Mr. Forsdyke's translation of 'hochgeschwungene,' is not really so typical a form in the centre of distribution. It seems indeed to have been the most popular in the foreign market, but from Piperis we have



FIG. 3.—VASES FROM MYCENAE.

[From *J.H.S.* xxiv. p. 136.]

only one such cup as opposed to nine goblets of the Lianokladhi type, six craters shaped like the Warrior Vase, four large amphorae and several other vessels.

This is of high importance since it is in this style of handle that Mr. Forsdyke finds the Trojan influence most conspicuous. But Trojan parallels to the little strap handle of the 'Lianokladhi goblets' would be hard to find. On the other hand it is quite conceivable that the 'high-swing' handle may be merely a development of the latter. Thus the handles of the second of the cups shown in Fig. 3³¹ simply represent a prolongation of those of the first; but this resembles the Lianokladhi type.

²⁹ *Rev. Ét. Grec.* p. 269 f.

³⁰ *J.H.S.* xxxiv. p. 152.

³¹ They are Minyan in form though not in fabric.

Thus, if the Lianokladhi type is more typical, as the recent finds suggest, there is no need to go to the Troad for the origin of this handle type. Moreover in Greece these Minyan handles are essentially band handles, while the 'high swung' handles of the Trojan vessels cited are throughout roll handles³² Band handles are typical of the North Greek Urfinis and go back to the first Neolithic age of Thessaly.

Nor do the other forms seem at all characteristic of Hissarlik. The large craters of the Warrior Vase shape can certainly be paralleled in the Trojan series³³ though only before the sixth city. But they are rare and show little variety. No conclusion, then, can be based upon them. Besides the varieties from Piperis, some with two and others with four handles, some with a foot and others without, show that the form was locally developed and several variations were tried. The large amphorae, notwithstanding a Trojan look about the lip, are not the least Trojan in form.³⁴ Finally, the pithos is a little like No. 2517 of Schmidt's catalogue, but this is by no mean typical of Hissarlik. Both have affinities with the Cycladic pithoi. Yet the presence of such large vessels in such quantities surely invalidates Mr. Forsdyke's suggestion that all the genuine Minyan ware in Greece was imported from Troy. I can find no analogy for the transportation of such vessels across the sea in prehistoric times. It remains then to see if we may admit that the technique was derived from Troy. The forms so far enumerated are not typical of Hissarlik, as we have seen, and, in fact, I can find nothing essentially Trojan except, perhaps, the ribbed stems. I could see no sign of any of the forms so characteristic of the Troad, the *δέπας ἀμφικύπελλον*, the string-hole jar, the 'face-urn,' nor yet the spherical-bodied spouted jugs and cups.

But, further, to derive the Minyan technique of Central Greece from the ceramic of Troy VI. involves chronological assumptions very hard to accept. It has been shown that Minyan ware must begin in Greece very little later than M. M. II. Mr. Forsdyke has accordingly to push the beginnings of the 'Homeric' city back to 2000 B.C. But the earliest imported Mycenaean ware figured in Schmidt's catalogue is L. M. II.³⁵ The majority of vessels, such as false-necked vase No. 3386 and craters 3394 and 3395, are definitely L. M. III. and fairly late in that period. But imported wares only give a terminus *post quem*. Thus for the theory in question, it is necessary to suppose that the sixth city lasted a good 800 years from *circa* 2000 B.C. to *circa* 1200 B.C. Neither the ceramic nor the architectural remains of the 'Mycenaean' town justify us in admitting such a long period; for this was a period which saw the end of the First and the building and rebuilding and end of the Second Palace at Knossos, as well as the great change from the brilliance of the later Kamares to the decadence of the pottery in 'Re-

³² This persists even in some of the (?) Minyan vessels of Troy VI., e.g. *Schliemann Samml.* No. 3,491.

³³ Cf. e.g. *loc. cit.* Nos. 1,809, 2,514, and 2,515. Only about five seem to have been

found. None have feet.

³⁴ The shape resembles the early jugs from Knossos (*B.S.A.* ix. Fig. 66 c and o).

³⁵ e.g. No. 3,435. No. 3,406 is almost certainly L. M. III. b, not L. M. I.

occupation period.' Besides the total absence of earlier Greek sherds is very peculiar. We might at least expect to find some sherds of the geometric *Mattmalerei* which from the beginning is found with Minyan in Orchomenos III. But these wares are conspicuously absent. The pottery classed by Schmidt³⁶ as local Trojan imitations of Mycenaean wares, though having matt paint, has no resemblance in its ornamentation to any *Mattmalerei* I have yet seen from Orchomenos. The absence of this ware, indeed, speaks decisively against any early connection between Central Greece and Troy. The presence of so-called Minyan ware in Troy VI. does not necessarily raise the date of the foundation of that settlement, since this ware continued to be imported into Melos down to L. M. II.³⁷ This is really a much more probable date for the beginning of the sixth city than M. M. II.

Thus we have shown (1) that on chronological grounds it is impossible to derive the Minyan of Central Greece from the ceramic technique of Troy VI. (2) That in view of the variety of forms and size of the vessels found at Piperis, Minyan cannot well be an imported ware in Central Greece. (3) That the absence of typical Trojan forms among the new shapes excludes any immediate dependence on Trojan ceramic. (4) That even the 'high swung' handles are not necessarily Trojan in origin. Accordingly, pending further evidence, we must reject Mr. Forsdyke's invasion theory. But we must also admit that the author has drawn attention to a real connection between the pot fabrics of Central Greece and those of the shores of the Hellespont, thus raising an important problem. It remains now to suggest a solution.

The natural place to look for connecting links between the Troad and Greece is the Northern Cyclades, and here plenty of evidence is ready to hand. The visitor to the Cycladic Room of the National Museum at Athens cannot fail to be struck by the resemblance in form and technique between some of the mugs from the tombs of Syra and Naxos and those in the adjoining hall from Hissarlik. Thus the jug No. 5115 from Syra, with its spherical body and 'high swung' roll handle³⁸ recalls a well-known Trojan shape.³⁹ The polished red surface is indistinguishable from that of Schmidt's second period of ceramic from Troy II.-V. Nor are these only isolated examples, but there are several such mugs in the cases in Athens and at Hissarlik they are of a typical shape. With those at Athens are also saucers of the same red ware resembling Trojan shapes. Here we have definite and unmistakable evidence of connections with the Troad. But these Cycladic Tombs also seem to fall between E. M. III. and M. M. I. This conclusion is based on the high development of the incised ornament and the beginning of 'geometrical designs in lustrous paint'⁴⁰ as well as from imports to Crete. The Trojan influence, however,

³⁶ *Troja und Ilion*, p. 284 f.

³⁷ *Supra*, p. 199.

³⁸ Cf. 'Εφ. 'Αρχ. 1899, Pl. IX. Nos. 7 and 11.

³⁹ Cf. *Schliemann Summl.* Nos. 1,198 f.

Kahrstedt has noticed this, *Ath. Mitt.* 1913, p. 182.

⁴⁰ Edgar in *Phylakopi*, p. 96.

only becomes apparent late. The early tombs of Amorgos and the Pelos cemetery do not show it. The southern limit of connection is found in the duck vases of Phylakopi I. A fine example of this class comes from Troy in the third period of the technique.⁴¹ As we go north, the connections with the Troad become more strongly marked till at the northern limit of the Cycladic culture, in the 'pre-Mycenean' tombs near Chalcis in Euboea,⁴² Trojan, and Cycladic forms are about evenly balanced. Thus of the jugs on Plate Θ of Mr. Papabasileios' publication, three of which are reproduced in Fig. 4, all are very Trojan looking.⁴³ Again, all the vessels of the top row of Plate H (except perhaps the first) can be paralleled in Hissarlik.⁴⁴ Two examples are shown in Fig. 5. On the other hand the 'frying pans'⁴⁵ and the idol of Fig. 2 are definitely Cycladic. The developed

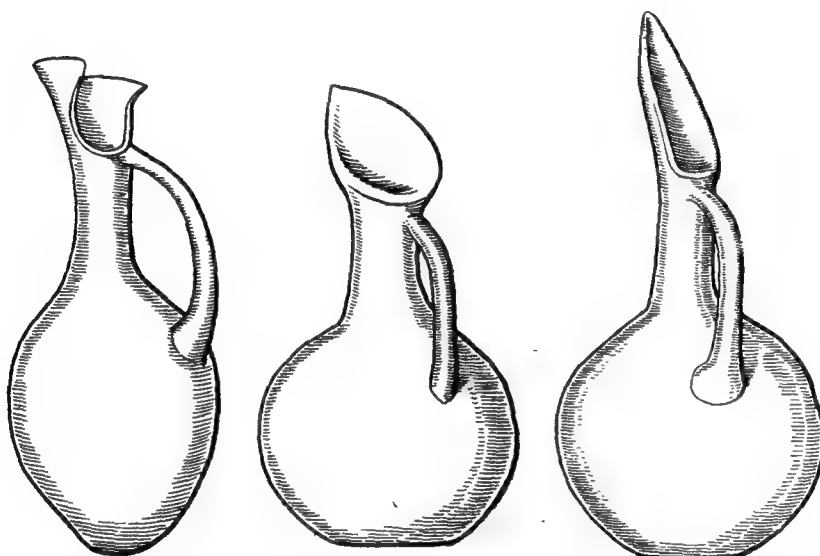


FIG. 4.—JUGS FROM PRE-MYCENEAN TOMBS IN EUBOEAE

form of the tombs as compared with those of Syra, the shape of the dagger shown in Fig. 13 and the wheel-made jug suggest that these tombs are some of the latest in the Cycladic group. But they definitely carry on the Cycladic tradition. The number of silver articles is also noteworthy.

The above considerations all go to prove that the northern Cyclades were in close connection with Troy II.-V. But the influences probably went in both directions. Thus the use of paint may have come to Troy from the South. The painted pyxis (*Troja und Ilion*, Fig. 158) of the second period

⁴¹ *Schl. Samml.* No. 2,066.

⁴² For these see Papabasileios, *Περὶ τῶν ἐν Εὐβοίᾳ ἀρχαίων τάφων*, Athens, 1910.

⁴³ Cf. Schliemann's *Ilios*, Figs. 1161 and

1162 (hand-made) and Fig. 1152 (wheel-made).

⁴⁴ For 3rd, 4th, and 6th see above; for the 5th cf. *Schl. Samml.* Nos. 2,235 and 2,814.

⁴⁵ *Ib.* Fig. 14 and Plate B.

is like one from Syra in its design of lines and dots of paint.⁴⁶ The spiral, however, did not reach the Troad till the third period. The spirals of the (?) lid, shown in *Troja und Ilion* (Figs. 166, 167)⁴⁷ are very Cycladic. But concentric circles such as are common throughout the Cyclades appear in the second period.⁴⁸ Many other ornaments of that period have a Cycladic look.⁴⁹ On the other hand, the use of the wheel does not seem to have been taken over by the Cycladic folk.⁵⁰ The inference from all this is not conquest but close and continuous interconnection during the Early and well into the Middle Cycladic period. The geographical situation of the group explains the distribution of this Cyclado-Trojan culture. The Cyclades themselves must have formed to some extent a barrier to navigation between the northern and southern halves of the Aegean. For though easy to sail along, primitive man must have found some difficulty in sailing through such a close-set belt. Hence the gradual disappearance of Trojan connections towards the South. Valuable articles like Melian obsidian could, of course, be brought through, but no frequent intercourse was possible. If we



FIG. 5.—CUPS OF TROJAN SHAPE FROM EUBOEIA.

remember this fact we shall more readily understand the divergences between the Northern cycladic pottery and Melos. In the latter island 'frying pans' are not found and it never produced an incised ware to equal in finish and elaboration the Naxos and Syra vases. On the other hand, it quite soon produced a large supply of painted vases. Indeed it is instructive to note the distribution of painted wares in the Cyclades in the Early Period. At Melos they soon became the rule. At Naxos, too, they are very plentiful, but not to rival the incised wares. From the Syra group we have only a few and from Euboea none at all. From the connections with Hissarlik in the latter we get a little before 2400 B.C. for the best period of the second city to which Schmidt assigns the pottery of his second stage of technique.⁵¹ This agrees well with general probabilities of Aegean chronology and allows us to place the 'Homeric' city in its natural place in the Late Minoan Age certainly not before 1500 B.C.

⁴⁶ 'Εφ. 'Αρχ. Pl. VIII. 11.

⁴⁷ *Equal Schl. Samml.* 2,470.

⁴⁸ *Schliemann Samml.* 2,412.

⁴⁹ Cf. the neck band *Troja und Ilion*, Fig. 163, centre of lower row, and *Phylakopi*,

Pl. V 17. Note also the pointillé work of Troy.

⁵⁰ The one jug from Euboea must be an import.

⁵¹ *Troja und Ilion*, p. 280.

It remains to apply these results to the elucidation of Mr. Forsdyke's problem. Now that we have seen a genuine case of strong Trojan influence in Euboea we can no longer accept the invasion theory. The explanation of the parallelism between the Minyan technique of the mainland and the ceramic of the Asia Minor coast lies rather in recognising the existence during the preceding period of a more or less unitary culture through the North Aegean and including the Troad. The development of this resulted in the appearance of parallel phenomena on either side of the Aegean. It is not needful to suppose that either of the new cultures thus evolved under different influences was in a relation of one-sided dependence to the other.

I should like, in conclusion, to express my thanks to Mr. Wace, Director of the British School at Athens, for his kind assistance in collecting material, and to Prof. Myres for several valuable suggestions.

V. GORDON CHILDE.

THE NEREID MONUMENT RE-EXAMINED.

WHEN the fragments of the Nereid Monument, which had been discovered by Fellows, were brought to England they were of course examined by all the experts in classical art, Cockerell, Falkener, Watkiss Lloyd, and others. It was Cockerell who first laid down the lines which all other students have accepted as obviously correct. In a letter to Newton, or rather a note added to the letter, printed in the *Classical Museum* (vol. v. 1848, p. 194), he wrote regarding the peristyle which is the key of the scheme—‘that such an arrangement of the cella may be obtained from the fragments themselves and the observations made by Mr. Rohde Hawkins [the architect to the expedition] I was able to demonstrate, when by his ingenious father’s introduction I had the honour, as a veteran in antiquities of this kind, to be consulted by him.’ Rohde Hawkins had many measurements and sketches taken at Xanthus before the stones were shipped for England, ‘when the backs of the slabs were sawn off for transport [and] the original joints were in some cases lost.’ He made a restoration, following Cockerell’s suggestions, which is represented by a drawing at the British Museum and by a description printed in the *Civil Engineer* (vol. viii.). Fellows made another attempt; but while following the same general scheme, he proceeded on the assumption that he had discovered all the slabs of one of the sculptured friezes. His result is embodied in the model now in the British Museum. Although his restoration of the structure was certainly too small, he associated many of the sculptured slabs together in groups—doubtless with the assistance of Scharf, his draughtsman—in a way which is convincing.

A third restoration was by Falkener, who showed himself a very accurate observer; indeed his examination of the Nereid Monument was probably the most minute essay in reconstruction which up to that time had been made of any destroyed building. By questioning Fellows and Hawkins he brought out some additional facts. He published his revised scheme in the *Museum of Classical Archaeology* (1851), and an elevation at the British Museum with the dimension 20 feet $7\frac{1}{2}$ inches figured across the frieze is probably his work, as the measurement agrees with his estimate.

A few years ago I worked over the material to try to discover which of the restorations most closely accorded with the facts. I came to the conclusion that Falkener’s criticism of Fellows was entirely justified, but that he himself had erred (almost necessarily by following the data given to

him), and that the scheme of Rohde Hawkins was, so far as it went, the most correct. I wish now to re-examine the whole question in detail, with a hope that the discussion may prove of use when a final restoration of the monument is attempted.

Since Cockerell pointed out the evidence, all have been agreed that the monument was a temple-like structure consisting of a cella and pteron, the latter having a sculptured epistyle and the cella a frieze. The entrance to the cella was recessed in antis. This superstructure was supported on a high basis or podium.

Along with Cockerell's letter to Newton, referred to above, he sent him a drawing which was engraved for Newton's article on the Mausoleum. Although in the main Cockerell based this drawing on Fellows' results without going minutely into the evidence, he made some variations which we shall see were probably corrections. He did not recess the back of the cella deeply between the antae; he put a doorway in the base of the structure: and he showed the masonry of the podium as built of courses alternating wide and narrow. The substructure of the monument still exists. Scharf made an excellent drawing of it, and a photographic illustration is given in Benndorf and Niemann's *Reisen in Lykien* (vol. i. Pl. 24). It stands on a slope above a sudden fall in the ground. From Fellows' plan of the site at the British Museum it appears that the steep fall represents a giving way of an old retaining wall which passed just in front of the monument. The substructure was constructed of heavy blocks of the local limestone, some of them fully eight feet long, laid in level courses, with irregular but carefully fitted 'heading joints' in what may be called a semi-cyclopean manner. The four courses which showed on the more exposed side were together about 11 feet high; rough bosses were left up on the faces of some of these stones.


Fellows gave the size of this substructure as 33 by 22 feet. These dimensions are in round numbers, and they are given more accurately by Benndorf and Niemann as 10.1 m. by 6.795 m. = 22 feet 4 inches by 33 feet 2 inches. The relation of length to width was evidently intended to be as 3 to 2 at some level above the substructure.

The Great Course and the Podium.—On one side of the monument another course of masonry remained in position, being set-in an inch or two from the lower work. And there was evidence that above this 'great course' there was again a change in character of masonry, or in size, or both. Fellows says 'the upper course now remaining was set-in three inches,' but Benndorf's dimension is again more trustworthy.

'On the substructure the marble masonry did not follow at once, but there was first a broad course of limestone blocks [the "great course"]. Of these only four stones—of the northern long-side—are remaining for a length of 9.082 m. They are 1.23 m. high, worked smooth on the front face, and are set back from the substructure about 0.045 m. The upper surface of this course has been worked for a width of 0.56 m. from the outer edge as a bed for a course which followed next. Hawkins measured the breadth of this

bed as 1 foot 9 inches = 0.534, and rightly supposes that this bed formed the basis for the 1 foot 4 inch blocks of the larger frieze.¹

We may as well have the actual words of Hawkins too: 'Upon the base which still exists [*i.e.* the "great course"] are the marks of a bed worked for the next course; this bed extends 1 foot 9 inches inwards from the face of the work. It is evident, therefore, that the next course of stones must have extended to that size. Now there is no evidence of any other stones being placed upon this [the prepared bed] except those of the Parian marble: these stones are 1 foot 4 inches thick [on the bed], and therefore could only have been set in 5 inches from the face of the base.'²

There are two insecure assumptions here, one being that the slabs of the 'broad frieze' 16 inches thick followed directly after the 'great course'; and the other that (if it did so follow) it must have been fixed close to the rough masonry at the back. There was quite a custom in Asia Minor of building walls having, alternately, high courses with a wide cavity between the stones on each side of the wall, and narrow bonding courses. This might or might not apply to the marble *facing* blocks of our monument, but I think it probable that in any case they were in high and narrow courses alternately, as Cockerell assumed. It is impossible, I believe, that the broad sculptured frieze should have been set directly above the 'great course' so as to have its face 5 inches back from that course. This frieze has a projecting ledge which supports the feet of the figures, and this ledge is nearly 2 inches up from the bottom of the slabs. If, therefore, they were fixed in the way suggested there would have been a narrow, deep groove showing perfectly black in the sunlight, which would have separated the 'broad frieze' from the great course. Again, the 'narrow frieze,' which all agree in putting high up on the podium, has an exactly similar ledge, so it is probable that in both alike the sculpture stood out beyond the general face of the masonry beneath the friezes. Finally, the evidence as to the size of the superstructure is, as we shall see, so clear and convincing that it is certain that the broad frieze was not fixed with its face 5 inches inside the line of the 'great course.' There may have been a course or two of marble between the 'great course' and the 'broad frieze,' or perhaps this sculptured band was set directly on the 'great course.' In either case the background of the sculpture must have been flush with the masonry below it, and the 'great course' really gives the size of the podium. The 'shelf' beneath the reliefs is stopped near the corners, so that the angles are continued to the bottom. The angle stones of the frieze are 2 feet 3 inches on the return, but these have been cut out at the back (thus, ) so as to leave the thickness about 16 inches. Compare a similar stone at the end of a hollow wall at Delphi (Durm, ed. 1910, p. 164). The great pediment slabs of the Parthenon, it may be recalled, are hollowed out at the back, and the sculptured frieze is fixed with a cavity behind it. My conclusion is that the stones of the 'great course,' which were about 4 feet high, did not form a second plinth with a set-back above it, but the

¹ Benndorf and Niemann, *Reisen*, p. 90.


² *Civil Engineer*, vol. viii.

'broad frieze' followed it directly, being fixed with a hollow space behind, so that the background was flush with the 'great course.'³

The podium must have been of considerable height, for space had to be provided for the two 'friezes' or sculptured bands which surrounded it. As the angle blocks of these friezes show, the walls of the podium were battered, something about an eighth of an inch to the foot, giving an inclination much the same as that of the diminution of the columns above. If it was 16 feet high the decrease would thus have been about 2 inches on each face. At the end elevation of the monument the width of the substructure was 22 feet 4 inches, the width at the 'great course' or bottom of the podium was about 22 feet 1 inch, and the width at the top of the podium would be about 21 feet 9 inches, allowing for the decrease caused by the battering of the faces. As we shall see even this is rather too small an estimate, and the battering can hardly have been more than 1½ inches, giving a width of 21 feet 10 inches.

It seems probable that there would have been a door in the podium, as Rohde Hawkins supposed, giving access to some simple stairway to the upper story and possibly also to the actual tomb chamber. The stair may have turned at a right angle and landed in the pteron. The stone 963, which has three rows of egg and tongue of a similar style to the moulded course under the order, must be the lintel of a door. It is quite certain that the stone belonged to our monument. Falkener writes: 'The cornice of the stylobate [podium] is remarkable as consisting of a double row of egg and tongue moulding. An unappropriated fragment of the natural stone of the country exhibits a triple row of this ornament.' It does not seem to have been noticed that this moulding has a proper termination at the left hand and that the amount of projection of the eggs and tongues at the end is worked fair. On the lower side, beginning from three or four inches in from this end, there is evidence that the lintel was fixed over a wide plain stone-post or jamb. (Compare some door jambs at Trysa.)

If the site of the monument was levelled, and this seems a probability from Fellows' survey, two courses of the substructure may have been exposed (judging by the height of the accumulated soil shown in Scharf's sketch), although Fellows shows only one course exposed. There would even in the latter case have been height for a low doorway between the ground level and the top of the 'great course,' as suggested by Cockerell. This could not however have been the case at the end of the monument which has been illustrated, as here the substructure was complete to its full height. We have, I believe, no record of the condition of the other end, and it is perhaps more reasonable to assume the position suggested than to suppose that this door with its limestone lintel rose above the 'great course.'

³ The narrow frieze of the podium seems also (judging from the indications on Fellows' plan of the stones as found) to have had the angle stones cut to the  form. I find that Fellows

does say that the Podium was built [cased] with large blocks of marble the same size as those of the large frieze; these required narrow alternate bonding courses.

The Narrow Frieze of the Podium.—As we have all four angle stones of the narrower podium 'frieze' and most of the intermediate blocks, it becomes a most interesting puzzle to arrange them in their proper original relation. Fellows started with the assumption that he had recovered all the stones of this band, and on this based his whole restoration. Falkener showed that Fellows' scheme was not according to the architectural evidence and was far too small. He therefore added two blocks to this band. It appears from the super-structure that Falkener's restoration was itself too small by more than a foot in each direction, and this calls for a third additional stone in the second frieze. If we now attempt a rearrangement of the stones on this basis we come to the solution

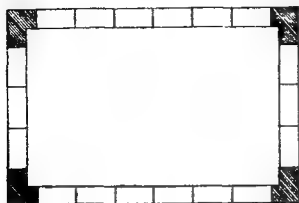


FIG. 1.—PLAN OF THE
NARROW FRIEZE.

shown in the diagram (Fig. 1). It is evident that this is far the simplest and best scheme in itself, the corner stones being symmetrically disposed with their long-sides facing the two fronts of the monument. On these corner-stones similar sculptured groups in two cases show that a pair of them must have been arranged to balance, and the other pair fall into place in consequence. The existing parts of this band make up a total length of 94 feet, including both faces of the four corner-stones. As the existing intermediate stones average about 4 feet 6 inches, it appears that the original total length must have been about 107 feet 6 inches, if we are right in supposing that three stones are lost. If now we break up this perimeter we obtain two short sides of about 21 feet 6 inches and two long sides of about 32 feet 3 inches. This in both cases is about 7 inches less than the extent of the great course and within about 3 inches of what was estimated. As this seems promising we may now venture to advance a step further. On looking through the sizes of the stones of this frieze, which are accurately given in the B.M. Catalogue, it will be noticed that, irrespective of the angle blocks, seven of the stones vary in length from 4 feet 2 inches to 4 feet $3\frac{1}{2}$ inches, and eight vary from 4 feet $5\frac{1}{2}$ inches to 4 feet 10 inches. Let us assume that the short stones belong to the shorter sides of the monument and the long stones to the longer sides. We now find that the four angle stones plus any six of the seven short stones make about $43\frac{1}{2}$ feet for the two fronts, the half of which is 21 feet 9 inches, which is the same as our former estimate of the size of the podium. This result at once justifies the assumption that the short stones were on the short fronts.

We may now try to pick out the actual slabs which were associated in the two fronts of the building. We have first to throw out one of the seven short stones, and there can be no doubt that the one with the scaling ladder must go, for that was certainly associated with stones which could not, if our general reasoning has been right, have belonged to the narrow fronts of the monument. The six which now remain so perfectly fall into two groups and agree with observations made by Fellows, Falkener, and Michaelis as to

the obvious sequence of several of the slabs that there cannot be any doubt whatever that we have obtained the true arrangement. These groups are: (*A*) 868, 866, 874, 882, 871, and (*B*) 876, 877, 879, 880, 884. One subject is a Battle, the other a Surrender of a Lycian city.

N.W. END (<i>A</i>)				
868	866	874	882	871
Advance of Infantry.	Fringe of the battle.	Centre of the struggle.	Fringe of the battle.	Advance of Infantry.
S.E. END (<i>B</i>)				
876	877	879	880	884
Walled city.	City continued.	Satrap seated.	A surrender.	Prisoners led off.

Thus arranged the subjects of this frieze work out perfectly. Fellows, Falkener, and Michaelis have all seen that the first four subjects of End *B* were together, but Falkener saw further that the fifth slab seemed to belong to the same composition; he 'should have confidently associated the group which appeared to represent prisoners led away with the group of Harpagus [the satrap] on the south-east side,' but it could not belong to it, he had to conclude, for his measurements did not allow that it should have done so. For myself I have not worked up to this foreseen solution; I have come to it from a consideration of the dimensions exactly as has been explained. Finally, the dimensions thus obtained for the two ends of the monument tally perfectly with each other and with the dimensions required by the size of the podium. Taking the several measurements of the particular stones we obtain 21 feet 10 inches for one end and 21 feet 10½ inches for the other, and 21 feet 10 inches is the dimension within an inch which we said was probable for the top of the podium. The proof is now so manifold that it is absolutely certain that we have found the right arrangement of the stones for the ends of the monument (Fig. 2).

On considering the slabs as yet unplaced we shall see that they fall into two groups: (*C*) A sortie from a city, and (*D*) The siege of a city. Taking Falkener's arrangement of these subjects as a basis, I should bring his LVII. and LVIII. (881 and 867) to the other side after his LIX. (873). This would push the city of the sortie close up to the right hand end (cf. Michaelis⁴). The siege side had, as all agree, the scaling-ladder slab next the left-hand end, then followed the two slabs as in Falkener's disposition, and the next may have been other similar ranks of men advancing to the left.

We may now check the length of the actual stones making up the sortie subject. This gives a total length of 32 feet 7 inches, and within an inch bears the same relation to the dimension of the long side of substructure as the length of the end subjects did to its short sides.⁵ The narrow 'frieze'

⁴ Who puts one intervening slab.

⁵ The extra inch allows the battering on the long sides to have been 2 inches.

of the podium was thus only about 3 inches shorter than the 'great course' at the ends of the structure, and this proves the correctness of our reasoning in regard to the size of the podium, and this is again confirmed by the fact that the masonry at the British Museum, which was built up merely of a suitable size to support the superstructure, is 21 feet 11 inches wide. It is certain that the narrow frieze was at the top of the podium under its egg and tongue capping moulding, for along the top of the frieze slabs runs a bead and reel mould which spaces accurately with the eggs and tongues of the capping.

Falkener made his end dimension at this height 20 feet 5 inches. By starting with a measurement 4 inches too short for the end of the substructure and accepting the set back of 5 inches above the 'great course' he could only obtain a width of 20 feet 7 inches at the frieze of the order,⁶ where Rohde Hawkins had given a dimension of 22 feet, which he derived, as he says, by working down from the size of the pediment which is known from the stones which exist.

We now have this dimension of the pediment accurately worked out in the actual restoration in the Museum. It is 25 feet 8½ inches in extreme width from cymation to cymation. The cornice projects from the epistyle fully 2 feet, therefore the width at the epistyle was about 21 feet 7 inches.

Some whole stones of the epistyle give columniations of about 6 feet 9 inches for the fronts (as in the Museum restoration). Three such columniations with an allowance for the projection of the epistyle beyond the centres of the outer columns give a width of front at the epistyle of about 21 feet 6 inches. Both these results agree in being about a foot more than Falkener's estimate.

The Cella Frieze.—The width of the cella is derived from the total width by deducting the known dimensions of the lacunar stones. Falkener made the width at the antae 11 feet 3½ inches; it must in fact have been about a foot more. I estimate the width of the cella from outside to outside the walls as little less than 12 feet. This dimension is important as it leads up to a restoration of the cella frieze. Three lengths of this frieze (898, 899, 900) were clearly always in connection with one another as they now are in the Museum; on these stones is sculptured a feast of sixteen persons with several servers. At the left hand end is a large wine crater, and there are traces of a similar vessel on the right hand of the existing part of this frieze. As all the four angle pieces exist the right hand termination of the length of frieze we are now discussing must have been one of them, and the total length of the set cannot have been less than 15 feet. These three slabs must therefore have been part of one of the long sides, and they must have been completed by other stones, one being a corner return. If there was one intermediate slab (Fig. 3), the whole must have been about 20 feet long. As this would agree very well with three of the flank columniations it is

⁶ To obtain even this he seems to have pushed his columns too far out on the moulded capping of the podium.

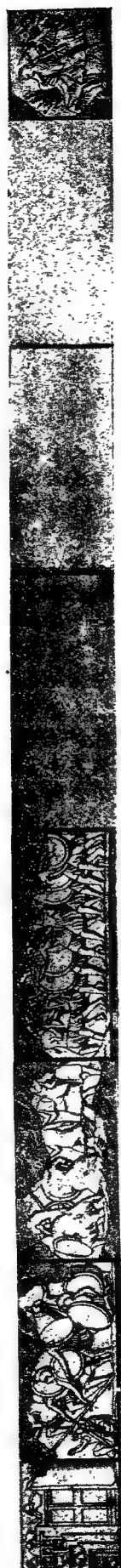
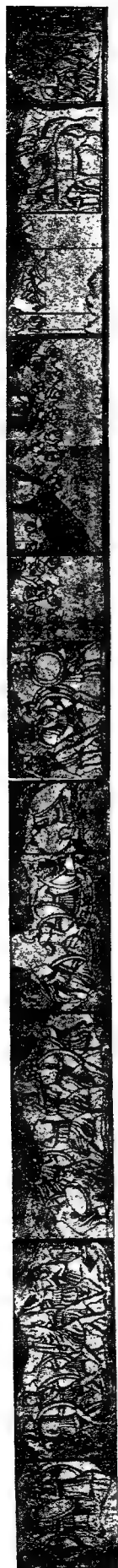


FIG 2.—REARRANGEMENT OF THE SECOND FRIEZE.

The twenty-two blocks follow in order from the S.E. corner. It may be doubted whether the penultimate block in the second row should not occupy a similar position in the fourth, and its place be taken by the fourth block in the fourth row.

a likely solution. It has been observed that this banquet is 'the feast of everyday life' (*Catalogue*, p. 31). A very similar feast of sixteen persons is represented at Trysa, and in that case several dancing girls are associated with the subject. This makes it probable that the one girl who appears on our slabs is also a dancer.

Two stones now widely separated at the British Museum (901 and 906) are so exactly alike in general character that they must have been disposed to balance one another. They must therefore have been the ends of one length of frieze, for each piece has a return end, one to the left, the other to the right. Another stone now associated with the first stone of the pair just mentioned seems to be properly so placed, although in the *Catalogue* another fragment is interposed. On the stone 903 is carved a single figure reclining and drinking from a rhyton, which terminates in a griffin's head. Similar reliefs are frequently found at Lycian tombs and elsewhere. The man is described as 'a dignified bearded figure wearing a broad taenia. A dog lies beneath the couch as in the usual type of sepulchral banquet relief' (*Catalogue*, p. 32). This should be the person for whom the monument was erected: the two groups, one on either hand, would then be mourners, and their general character seems to justify this view. Near the left-hand angle a man leads a horse, while another nearer the centre carries 'an object like the satrap's umbrella' (*Catalogue*, p. 31). Both the led horse and the umbrella are signs of personal dignity. On the left a man and woman talk, and on the right a group of men converse together.⁸ The three stones together in their present state make up a length of nearly 12 feet, and would thus be suitable for one of the ends, the defunct being in the middle and mourners on each side. The angle stone 906 is 3 feet 11 inches long, with a proper joint to the left. The angle stone 901 is 3 feet 11½ inches long, and probably the end represents a joint. The intermediate stone 903 is 3 feet 10 inches long, with a proper joint to the left, and the subject seems to be complete. There is thus high probability that these three stones averaged nearly 4 feet long. Michaelis shows the right-hand joint of 903. His illustration of 901 suggests that it was an inch or two longer. Fellows put the stone 901 at the end of the cella, so it must have seemed to him suitable for the position. The scheme is so exactly similar to a sepulchral banquet with groups of mourners on either hand sculptured over the doorway on the front of a tomb at Hoiran in Lycia (Benndorf and Niemann, vol. i. p. 33 and Pl. V.) that little doubt can be possible that this subject so treated was on one of the ends of the cella. Michaelis rightly saw that the two stones with the groups of mourners on them formed the terminations of one length of the frieze, but he was forced by the wrong dimensions to which he worked to place them on the side of the cella and to associate with them fragments unsuitable in scale and subject. Two other fragments at the Museum were, it is clear, always

⁷ Compare the Merehi tomb in the B.M. A very similar composition occurred on one of the Sidon sarcophagi.

⁸ Since writing this I find that Falkener

says: 'We find on the cella a funeral procession, amongst the figures of which is the horse of a deceased warrior.'

together as now (904 and 905). Fellows says they formed one stone, and in the *Catalogue* it is added that this stone was 'sawn in half for transport' (p. 32). This last point seems to be a mistake, as the fragments appear to be divided by a fracture; but in any case they once formed part of one stone. This stone must have been *more* than 9 feet long: the termination on the right hand is lost, but at the left it has a sculptured return. The subject of the sculpture on the front is a sacrifice, a subject which would be appropriate for the entrance front.

The frieze, which is described above, of one of the flanks was made up of stones about 4 feet 8 inches long; this again suggests that the sacrifice stone, which must have been at least twice as long, did not belong to a flank. All the restorers indeed agree in putting it at one end of the cella. When we find that the altar of sacrifice, which was the centre between groups approaching from both right and left, is at a distance from the sculptured return equal to half the width of the cella, we may accept it as proved that the Sacrifice was in fact at one end of the Cella.

We have some check on the general arrangements from possessing all the four angle stones; as shewn in the diagram they suit perfectly the disposition which has been arrived at.

One small fragment, No. 943, is of a horseman exactly like the warriors and hunters of the epistyle. As it was hardly possible for a galloping horseman to have belonged to the subjects described—a feast, a sacrifice, a sepulchral banquet—we must assign it to the fourth side. Now on the right-hand return of the subject of the sepulchral banquet and mourners, there is sculptured a flying Victory, which would find its place at the left-hand of the second long side. The conclusion is obvious that the sculpture here represented a battle, and the whole evidence shows that the frieze of the cella was disposed thus—

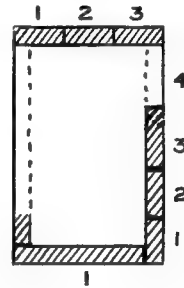


FIG. 3.—PLAN OF THE CELLA FRIEZE.

- A. Funeral sacrifice at the entrance end of the cella (904, 905).
- B. Sepulchral banquet and mourners at the opposite end (901, 903, 906).
- C. Scene of feasting on one of the long sides (898, 899, 900, &c.).
- D. Battle scene on second long side (943, &c., and Victory).

A fragment of a feast or sepulchral banquet (902) has been associated with the more perfect sepulchral banquet (903). It does not, however, conform so perfectly to the type of the banquet of the dead, and it could not have found a place in the same length of frieze if the scheme set out is correct. It is difficult to understand what meaning the two reliefs together could have had unless the tomb was erected for two men. It is on a stone only 1 foot 10 inches long, with a joint at each end, and it seems impossible that such a stone could be interposed in one of the end friezes. This relief, No. 902, may have been the 'master of the feast' on the long side of the cella, or there may have been additional frieze sculpture within the antae of

a likely solution. It has been observed that this banquet is, 'the feast of everyday life' (*Catalogue*, p. 31). A very similar feast of sixteen persons is represented at Trysa, and in that case several dancing girls are associated with the subject. This makes it probable that the one girl who appears on our slabs is also a dancer.

Two stones now widely separated at the British Museum (901 and 906) are so exactly alike in general character that they must have been disposed to balance one another. They must therefore have been the ends of one length of frieze, for each piece has a return end, one to the left, the other to the right. Another stone now associated with the first stone of the pair just mentioned seems to be properly so placed, although in the *Catalogue* another fragment is interposed. On the stone 903 is carved a single figure reclining and drinking from a rhyton, which terminates in a griffin's head. Similar reliefs are frequently found at Lycian tombs and elsewhere. The man is described as 'a dignified bearded figure wearing a broad taenia. A dog lies beneath the couch as in the usual type of sepulchral banquet relief'⁷ (*Catalogue*, p. 32). This should be the person for whom the monument was erected: the two groups, one on either hand, would then be mourners, and their general character seems to justify this view. Near the left-hand angle a man leads a horse, while another nearer the centre carries 'an object like the satrap's umbrella' (*Catalogue*, p. 31). Both the led horse and the umbrella are signs of personal dignity. On the left a man and woman talk, and on the right a group of men converse together.⁸ The three stones together in their present state make up a length of nearly 12 feet, and would thus be suitable for one of the ends, the defunct being in the middle and mourners on each side. The angle stone 906 is 3 feet 11 inches long, with a proper joint to the left. The angle stone 901 is 3 feet 11½ inches long, and probably the end represents a joint. The intermediate stone 903 is 3 feet 10 inches long, with a proper joint to the left, and the subject seems to be complete. There is thus high probability that these three stones averaged nearly 4 feet long. Michaelis shows the right-hand joint of 903. His illustration of 901 suggests that it was an inch or two longer. Fellows put the stone 901 at the end of the cella, so it must have seemed to him suitable for the position. The scheme is so exactly similar to a sepulchral banquet with groups of mourners on either hand sculptured over the doorway on the front of a tomb at Hoiran in Lycia (Benndorf and Niemann, vol. i. p. 33 and Pl. V.) that little doubt can be possible that this subject so treated was on one of the ends of the cella. Michaelis rightly saw that the two stones with the groups of mourners on them formed the terminations of one length of the frieze, but he was forced by the wrong dimensions to which he worked to place them on the side of the cella and to associate with them fragments unsuitable in scale and subject. Two other fragments at the Museum were, it is clear, always

⁷ Compare the Merehi tomb in the B.M. A very similar composition occurred on one of the Sidon sarcophagi.

⁸ Since writing this I find that Falkener

says: 'We find on the cella a funeral procession, amongst the figures of which is the horse of a deceased warrior.'

together as now (904 and 905). Fellows says they formed one stone, and in the *Catalogue* it is added that this stone was 'sawn in half for transport' (p. 32). This last point seems to be a mistake, as the fragments appear to be divided by a fracture; but in any case they once formed part of one stone. This stone must have been *more* than 9 feet long: the termination on the right hand is lost, but at the left it has a sculptured return. The subject of the sculpture on the front is a sacrifice, a subject which would be appropriate for the entrance front.

The frieze, which is described above, of one of the flanks was made up of stones about 4 feet 8 inches long; this again suggests that the sacrifice stone, which must have been at least twice as long, did not belong to a flank. All the restorers indeed agree in putting it at one end of the cella. When we find that the altar of sacrifice, which was the centre between groups approaching from both right and left, is at a distance from the sculptured return equal to half the width of the cella, we may accept it as proved that the Sacrifice was in fact at one end of the Cella.

We have some check on the general arrangements from possessing all the four angle stones; as shewn in the diagram they suit perfectly the disposition which has been arrived at.

One small fragment, No. 943, is of a horseman exactly like the warriors and hunters of the epistyle. As it was hardly possible for a galloping horseman to have belonged to the subjects described—a feast, a sacrifice, a sepulchral banquet—we must assign it to the fourth side. Now on the right-hand return of the subject of the sepulchral banquet and mourners, there is sculptured a flying Victory, which would find its place at the left-hand of the second long side. The conclusion is obvious that the sculpture here represented a battle, and the whole evidence shows that the frieze of the cella was disposed thus—

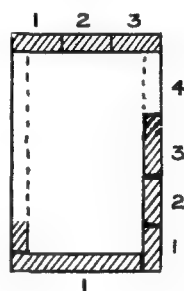


FIG. 3.—PLAN OF THE CELLA FRIEZE.

- A. Funeral sacrifice at the entrance end of the cella (904, 905).
- B. Sepulchral banquet and mourners at the opposite end (901, 903, 906).
- C. Scene of feasting on one of the long sides (898, 899, 900, &c.).
- D. Battle scene on second long side (943, &c., and Victory).

A fragment of a feast or sepulchral banquet (902) has been associated with the more perfect sepulchral banquet (903). It does not, however, conform so perfectly to the type of the banquet of the dead, and it could not have found a place in the same length of frieze if the scheme set out is correct. It is difficult to understand what meaning the two reliefs together could have had unless the tomb was erected for two men. It is on a stone only 1 foot 10 inches long, with a joint at each end, and it seems impossible that such a stone could be interposed in one of the end friezes. This relief, No. 902, may have been the 'master of the feast' on the long side of the cella, or there may have been additional frieze sculpture within the antae of

the east front. That this was so, indeed, is made highly probable by the evidence of the anta stone. This shews that the wall moulding under the frieze was in fact continued inside the antae. The stone, 907, with musicians, perhaps, also belonged to this situation (cf. Benndorf, *Heroön*, p. 234). Fragment 906, having figures with paterae may also have been inside the antae, this position might best account for its having been left unfinished. One of these is obviously not of a depth suitable to have formed part of the frieze around the cella. Michaelis, starting with Falkener's wrong dimensions, was forced into many difficulties, or even, as I think, impossibilities. He puts the two groups of mourners on one of the long sides, but with work of very different scale and character interposed between the two groups. He puts the sepulchral banquet, 903, and the other somewhat similar stone, 902, together as forming the subject at one end, and the Victory approaches this double sepulchral banquet. He found no place for the warrior fragment (943).


His drawings were evidently made before the stones were embedded as at present, and therefore they have some value.

One of the friezes was made up, as we have seen, of three separate stones. This seems to suggest that it was placed at the end opposite the entrance, and that this end was not recessed between antae. The stone of the Sacrifice may have been long enough to pass from one angle to where, above the opposite anta, it was overlapped by the end of the frieze of one of the long sides; or it may have been supported by intermediate columns as suggested by Falkener. It is a great pity that the stones have been so tampered with that much of the evidence is destroyed. When they were found it must have been easy to see which had wide soffits and fairly wrought backs, and thus must have been beams, and which, on the contrary, had been attached to a wall. The backs of the thicker stones seem to have been sawn off, and the end joints are now for the most part hidden. Further, there seem to be cramp holes in the top surfaces of the stones which have been filled up, and these are difficult to explain.

After writing this, I went to examine the fragments once again. It is probable that the cramp holes are modern, they are carefully stopped up and they seem to occur near the ends of the existing pieces which may have been cramped to the walls before they were rearranged about 20 years ago.⁹ I have now no doubt that the long block (904, 905) was indeed part of the beam which rested on the antae. It differs from all the other pieces in having a deep fillet under the sculpture which goes down to the level of the soffit, and that soffit, so far as it can be felt, is polished as no other bottom edge is. One other short length has a deep fillet which, however, does not go down to the soffit. This is the return of the piece which, as we saw, must have overlapped the end frieze of which the long block formed part. That this fillet did not range accurately at the height of the rest would not

⁹ Mr. Arthur Smith kindly informs me that these cramp holes are modern.

matter, as it was hidden by the projection of the anta cap. The figure sculptured on this return, which would have been the right hand termination of the Sacrifice group, carries a rod or torch.

The Order.—This has been well restored at the Museum. The plinth block under the base must be put there merely to protect it: the bases really rested directly on the upper surface of the moulded course which surmounts the podium. The columns are monolithic, their diameter 14·3 inches. Falkener, who measured them carefully with Penrose, says that they had an entasis of one-sixth of an inch. It appears from the restored pediment that the total projection of the cornice beyond the epistyle must have been fully 2 feet. Hawkins says 'two different sizes of corona were found, one projecting 10½ inches from the bed-mould, the other 4½, but on the under side of the latter marks were found which indicated the presence of [dentil] blocks'; the other corona was that of the pediment. The back of the restored epistyle is 'conjectural.' As a matter of fact the evidence is against its having been broken into fasciae, for Fellows shows it plain. Falkener gives the width of the epistyle as having been 15 inches. On Fellows' model only one lion's head spout is given to a columniation; this requires gutter stones nearly 6½ feet long. There must in fact have been at least two, and probably three, heads to a columniation. At such a great building as the Mausoleum the gutter stones were only 3½ feet long. The 'tiles' of the roof are shown absurdly wide; the number of courses up the slope also seems insufficient. Fellows says he found traces of the 'tiles' at the back of the cymatium of the pediment. The finish of the roof against the cymatium is abnormal in having a sort of coping which looks about 18 inches wide on the model. On Scharf's drawing of the substructure he shows several fragments round about: one of these appears to be the apex stone of the pediment with a piece of the 'tile' attached, that is, wrought in the same piece. This 'tile,' with a turned-up edge on the opposite side to the coping, looks about 2 feet wide. Of the bottom angle stone of the pediment on the right Fellows says it 'shows on its back the inclination and width of three successive tiles which were in the same piece.' One of the series of saddle pieces which covered the junctions of the capping pieces of the tiles is not quite rightly restored; it had no level bed, but was like this: . The vertical stem was an ornamental addition,¹⁰ which may have been completed with painted palmettes. Fragments of three antae capitals exist, or more probably of two antae proper and of an angle pilaster, for, as said, it seems unlikely that the back of the small cella was recessed between antae as was the entrance front. That there was a difference between the two fronts is suggested by the fact that one of the three 'antae' capitals was bedded differently from the other two. One of these capitals, which is practically complete, has three rosettes in front below the mouldings, two rosettes on the left-hand return, and only one on the right. Falkener decided that this capital had belonged to the

¹⁰ Compare a somewhat similar detail from Bassae in the British Museum.

right-hand anta, and that the narrow return was on the outside of the cella. This may be a mistake, as a lump of stone not worked off on the upper bed seems to show that no beam can have passed in the direction of the left hand, but only to the right over the narrow return. The mouldings of these capitals are three rows of Lesbian leaves on the front, and on the wider return two rows of egg and tongue and one of the Lesbian leaf-moulding. Above these was an uncarved moulding; this and the upper carved member of the capital were continued along the cella wall under the frieze, and, as said, inside the antae. It was set in as a separate piece, $4\frac{1}{2}$ inches deep. Fellows shows bases to the antae on his model, and he speaks of finding fragments of them. As the podium was battered the columns of the order may all have inclined inwards a little also.

At some distance within the antae was a cross wall in which there must have been a door to the cella. Fellows describes a stone of \perp form which he thought was one of the bond stones of the cross wall and the side wall.

Hawkins placed a door in the podium 'making use for that purpose of an architrave and part of a cornice which were found close at the foot of the east end of the building.' We, however, have seen that there is another stone which suits better the character of a door in the podium, and Falkener was doubtless right in making the other the door of the cella.

Falkener writes: 'On looking over Mr. Hawkins' notebook I find two fragments (left at Xanthus) of an architrave and cornice . . . from one of these it appears that the walls of the cella were thicker than those of the projecting walls of the antae.' Falkener illustrates the two fragments; one of them gives the thickness of a wall (about 21 inches) and shows that there was a moulding on the inside. The fragment of a console in the Museum (No. 937) may from its elegance be supposed to be a part of the same doorway. On its right side is an uncarved portion where the bed-mould of the cornice ran against it. The architrave had three faces without any additional mouldings on the outer edge except along the top. The door of a tomb at Myra (Texier and Pullan) seems to have resembled that of the Nereid Monument and helps us to explain a difficulty in regard to our console. At Myra the consoles were not set close up to the outer edges of the architrave, but there was an interval of some inches which allowed some of the capping mouldings above the lintel to return at the ends. The consoles only stopped the two or three members which were beneath the corona. If we consider the outer side of our fragment of a console we shall find a difficulty in imagining a suitable completion of its upper part. If it had been of the ordinary **S** form it would have had to be very tall to allow of completing the top spiral, indeed the rapid widening upwards of the external channel almost precludes the possibility of there having been any upper volute. I suppose, therefore, that this channel turned at right angles against the wall. Compare the console of the Treasury of Cnidus at Delphi (Durm, ed. 1910, p. 293), which has much in common with ours. The back of our console does not seem to have had any bond into the wall; it must either have been pinned on, or there was a tenon-like projection at the upper end. It may be recalled

that the restored consoles of the north door of the Erechtheum were only pinned to the wall, and from the records of that building there seem to have been similar 'ears' in other places where they have disappeared. These curious features appear to have been an expedient to stop the ends of cornices above doorways.¹¹ A fairly accurate restoration of this doorway could be made.

The lacunaria of the pteron has been accurately illustrated by Falkener. Fellows told him that slabs having three coffers in a row had been found, and Falkener was doubtless right in putting these at the ends of the cella, which were thus brought into line with columniations of the peristyle.

We saw that the stones of the cella frieze suggested a flank length of about 20 feet. Ten lacunar stones, each 1 foot 11½ inches wide, give 19 feet 7 inches, and 5 inches added for an extra margin would make the total exactly 20 feet. Again, Falkener makes the length 18 feet 11½ inches, and we have seen that these dimensions of his were too little by about a foot.

One of the stones of the doorway showed a wrought inner face with a capping moulding, so that it is certain that the cella was architecturally finished. Some fragments of what seem to have been portrait statues (940-942) may have stood here. All this throws some reflected light on the Mausoleum at Halicarnassus.

The First and Third Friezes.—Having obtained the sizes of the monument I returned to the first or broad frieze of the podium which, as we saw, would have to be about 22 feet long if it followed the 'great course' at once. Assuming that the more important sides of the corner blocks were at the ends of the monument, as was the case with the second frieze, and, as set up in the Museum, there can be no doubt that 850 and 854 balanced one another at the two extremities of one of the ends; the other angle-piece (860) is of another type.

These angle blocks, together with three intermediate blocks as actually set up in the British Museum, give a length of 22 feet ½ inch, which is just exactly the length we saw was required. It is practically certain that this was the scheme of arrangement, but it seems to me that two incongruous blocks 851 (4 feet 9 inches) and 853 (3 feet 10½ inches) have been used: the latter is much too small to balance the former. I would substitute 863 (4 feet 2¾ inches) and 856 (broken, but it seems to correspond to it); the length required for this would be about 4 feet 5 inches, the average size.

Blocks 860, 861, 862 all appear to have been in one composition, and as one of them is the long side of an angle block, they must also have been at one end of the monument; they average about 4 feet 7 inches, and require two blocks averaging 4 feet 2 inches to make up the length. This

¹¹ Middleton studied a stone of an enriched architrave now known to have formed part of one of the eastern windows of the Erechtheum (*J.H.S. Supp. Paper 3*, 1900). He described it as 'end of lintel block of . . . architrave

with a sinking and two pins to fix a console.' What he meant by a sinking does not appear on his drawing, but the pin-holes were evidently for fixing a console.

much, I believe, is certain—the two ends of the broad frieze were each made up of five blocks, averaging 4 feet 5 inches, and collectively about 22 feet 1 inch.

It is difficult to obtain any clear information as to the length of the epistyle blocks on which the third 'frieze' was sculptured. In the British Museum restoration of the end the columns are placed 6 feet $9\frac{1}{4}$ inches from centre to centre, and this result obtained by working down from the accurately reconstructed pediment must be nearly right. Falkener gives the size of three blocks as 6 feet 2 inches, 6 feet $2\frac{1}{4}$ inches, and 6 feet $5\frac{1}{2}$ inches, but he allows that all these dimensions are probably about 2 inches too short, and this would give two of about 6 feet 4 inches and one of about 6 feet $7\frac{1}{2}$ inches. One which is now most certain (886) is 6 feet 4 inches, and we saw that the flank columniations were about this dimension. The best point of departure for the arrangement of this 'frieze' is the hunting composition, which occupies three blocks. One of these (889) is as much as 7 feet 5 inches long; it is made up of two pieces, but they seem to be accurately put together, this is just the length the two blocks at the ends which overlapped the angles must have been. Another of the hunt blocks (887) is about 6 feet 8 inches and the third (888) is now about 7 feet, made up of two pieces. These three blocks, collectively 21 feet 1 inch long, can only have occupied one of the ends, which as we have seen was about 21 feet 7 inches long. To make up this length exactly, all we have to do is to make the 7 feet piece pair with the 7 feet 5 inch one, and add an inch to the 6 feet 8 inch block. These three blocks are each occupied by a separate episode: hunting the bear, the boar, the wild horse. Of a battle composition there are at least parts of four blocks remaining. No. 890, as now restored out of three or four pieces, is 8 feet 8 inches long, an impossible dimension for either front or flank. The one of these stones the length of which is most sure (894) is about 6 feet $4\frac{1}{2}$ inches long. Four or five blocks, one of which was such a length can only have occupied one of the flanks which had five columniations of about 6 feet $4\frac{1}{2}$ inches.

We now have six blocks left which are occupied with the groups of a funeral assembly and with servants bringing offerings or meats for the banquet. One of these blocks (886) has a length of 6 feet 4 inches. With other blocks which correspond to it in style, this must have occupied a flank position. Another block (897) is restored as 6 feet 8 inches long, and this must represent the second end of the structure.

Nereid Statues and Lions.—Fourteen or fifteen figures of Nereids seem to be represented by the existing statues and fragments. Five or more were somewhat smaller than the others. As sculpture several of the figures are distinctly poor, indeed 918 and 919 are almost repulsive. The design of these Nereids hovering with their feet supported on a bird or other creature has more in common with the Victory of Paeonius than with any other known work.

Fellows' scheme of restoration only required ten of these figures in the

intercolumniations and he used four others as acroteria, an arrangement followed at the British Museum. As the monument has sixteen intercolumniations, it is much more reasonable to suppose that all the Nereids occupied these spaces. Watkiss Lloyd argued against Fellows' scheme as a matter of taste and he conjecturally put Griffons as acroteria at the four angles. Now when we find that there is actually existing a part of a Griffon or Sphinx in the usual attitude for an acroterion ("944: Hind-quarters of a winged sphinx, seated") we may accept it as proved that all the Nereids were placed around the pteron and that four sphinxes served as angle acroteria. Sphinxes and lions are frequently found as tomb guardians in other Xanthian sculptures, and four served as acroteria on one of the Sidon sarcophagi. Fragments of four lions belonging to the Nereid monument were found by Fellows: these are best disposed as by Lloyd.

Dating.—Many obvious derivations in the sculpture and architectural details from the Parthenon and the Erechtheum have been pointed out. The relations with Trysa and other Lycian works which seem to be of the fourth century are still closer. A motive of a goat being dragged along to the sacrifice which occurs twice on our monument appears also in an important form at Ephesus, and the ordinary probability would be that the lesser derived from the greater. Some of the incidents of the hunting frieze—the ramping bear for instance—are found also on the Sidon sarcophagus of the mourning women (c. 350) and, the pedimental composition of the battle scene is so remarkably like the pedimental group of the Alexander sarcophagus (c. 320) that there must be some direct relation between them. A soldier at the left-hand end of a slab of the wide frieze, who turns to shoot an arrow, closely resembles a similar figure on the same sarcophagus. The sculptures of the narrow podium frieze are very pictorial with clever perspective effects; they belong to a school of sculpture which was consciously imitating painting.¹² The subject of the seated Satrap should be compared with a relief on the tomb of Merehi.

Notwithstanding a kind of superstition for dating this monument too early,¹³ it cannot be believed that such sculpture was wrought before the second half of the fourth century was well advanced. Some of the architectural details, as notably the poor mouldings of the pediment, point to the same conclusion.

In a copy of Watkiss Lloyd's *Xanthian Marbles* in the Library of the Hellenic Society is inserted a MS. letter from the author to Dr. Sharpe written in 1846, in which Lloyd says—'How could Sir Charles relish your sacrilegious attempt to bring down the date of this monument to the age of Alexander? I suspect as little as he is likely to be in love with the general purport of my own speculations. I freely admit that looking only to the terms of the inscription,¹⁴ especially with your construction of it, and even when we take

¹² See P. Girard, *La Peinture Antique*, it is assigned to early in the fourth century. p. 201.

¹⁴ Of the inscribed stele, I suppose.

¹³ In a recent British Museum publication

into consideration the lower frieze of the monument, the temptation is very great to ascribe the whole a triumphal intention and to regard it as a trophy tomb of the Carian Allies of Persia.'

Dr. Sharpe, it appears, saw 'Carian influences in the building,' and thought that the monument was built after the time of Alexander 'when doubtless the Carians gained ground in Lycia.' Newton, in the article before referred to, expressed the view that the Mausoleum was the prototype of our monument which was 'probably of a period subsequent to the time of Artemisia.' Fellows himself said, 'the peculiar form of its massive pedestal surmounted by a temple-like structure [is] similar to those which I have only seen in Caria in the ancient cities of Alinda, Alabanda and Mylasa.'

I have the hope that some time it may be found desirable to put the frieze slabs in their proper order; then I trust the further step will be taken of re-erecting one of the fronts, at least, in its complete form; indeed the possibility of setting up the whole monument should be carefully considered.¹⁵

NOTE ON THE DIMENSIONS.

As has been shown of the temple at Priene and other Greek buildings, we may expect that the chief dimensions of our monument were set out in multiples of the Greek foot, which was equal to 11·6417 English inches. The size given for the substructure agrees almost exactly with 23 by 34 Greek feet, and the dimension of the columniation of the front agrees very nearly with 7 Greek feet. The width of the front from angle column to angle column (centres) would thus have been about 21 by 32 Greek feet, being two feet within the substructure in each direction. The columniations of the flanks were four or five inches less than those of the fronts and the total dimension of the flanks gives $6\frac{2}{3}$ Greek feet from column to column. The measure along the outside of the frieze of the order would have been $22\frac{1}{4}$ by $33\frac{1}{4}$ Greek feet; that is very nearly as 2 is to 3 at this significant part. Possibly 7 Greek feet for the columniation is a little excessive, and we should take the dimensions 22×33 as the fundamental measure, but if the columns were inclined the fraction disappears. [I find that Hawkins had estimated the size of the monument at the 'great course' as 33 by 22 English feet, beyond which the substructure projected $1\frac{1}{2}$ inches all round (*Museum of Class. Antiqu.*, p. 259) and this nearly agrees with Benndorf's measurement. Fellows' scheme of restoration required him to contract the size as much as possible.]

W. R. LETHABY.

¹⁵ Beautiful drawings of the sculpture by Schaf are preserved in the British Museum. An illustration of one of the pedimental groups, from a drawing of his which seems to have disappeared, is given in an article by Gibson in the *Museum of Classical Archaeology*. Falkener's representation of the second frieze is

admirable. Our Fig. 2 is taken from it. Collignon has excellent illustrations of some of the figures and friezes in the second volume of his *History of Greek Sculpture*; and representations of most of the other fragments may be found in *Monumenti del Istituto*.

ANTHROPOMETRY OF GREEK STATUES.

[PLATES VII.-IX.]

NOTE.—The illustrations which I have given are not to be regarded as finished drawings, but rather as the best results that could be obtained from the records of my working note-books, and of measurings made in the midst of the statues. The whole purpose is to submit a practicable method.

I.—*The Doctrine of the Canon.*

IT is strange that it should be believed by many artists and critics of art that no doctrine of human proportions was known in the schools of the great masters. For the contrary would seem to be the true case, if we are to judge by the practice and the comments of the artists and their friends. Egyptian¹ and early Greek, and indeed all symbolic art is obviously based on measured proportions. The remark of Diodorus (I. 98) about the twenty-one parts by which the body was measured in Egyptian sculpture may not be enough for a theory of an Egyptian canon, but it agrees well enough with the plainly systematic treatment of the sitting and the standing figures. It is more difficult to believe that the Egyptian sculptor had *not* a set of ratios which he used in his work.² The same may be said of the archaic Greek statuary; and when we come to the classical work, we cannot think that the doctrine τὸ γὰρ εἶναι παρὰ μικρὸν διὰ πολλῶν ἀριθμῶν^{2a} was held alone by the followers of Polykleitos the Argive. Classical art develops so demonstrably on inherited doctrine of various kinds that it is hard to believe that there was no regard to proportions composed of numerical ratios as part of it. At the end of the Hellenic age such allusions as that of

¹ For a front view of the body as divided by the Egyptians into 19 parts (Diodorus, i. 98, seems to have been including the height of the head-dress when he says 21) see Lepsius's *Mon. funéraires de l'Égypte*; and cp. his *Descr. de l'Égypte*, iv. lxii.; and Wilkinson's *Hist. of Europe*, p. 113, Pl. IV. Gebhart gives this reference.

² S. B. (presumably Dr. Samuel Birch) in H.S.—VOL. XXXV.

a note to J. G. Wilkinson's *The Ancient Egyptians* (vol. ii. ch. x. n. 3) says that there were three canons: one as early as the Third Dynasty, the second from the Twelfth Dynasty to the Twenty-second, and the third subsequently. Diodorus refers, I think, to the third.

^{2a} Philo Mech. iv. 2. A writer of second century B.C.

Vitruvius (i. 2) to the measured basis of symmetry in art are quite in accord with what we know of the Greek practice: in hominis corpore e cubito pede palmo digito³ ceterisque particulis symmetros est eurythmiae qualitas. The supposition that first Polykleitos, and then Vitruvius, and then Leonardo da Vinci were trying to *establish* a doctrine and practice of calculation in statuary and architecture is, I believe, simply due to oversight, and perhaps not a little to the prejudice^{3a} which the enormous impulse expressing itself in later romantic art (especially since the championship of Goethe) has created in favour of the free work of genius untrammelled by any doctrine whatever.

The gist of the doctrine of Greek art, so far as it found words for literary comment (for plastic art is taciturn on this side), is to be found in the three summarising words *ἀναλογία*, *συμμετρία*, *εὐρυθμία*. The two last name the greater qualities which literature has made famous, the symmetry⁴ being that technical regard for the placing of parts to the best advantage, and the *eurythmia*⁵ the nameless grace to which language has striven in vain to give expressive names, that elusive *tertium quid* without which we may have skilled work of artisans and works of taste, and even of distinguished talent, but no true work of art. All this the cultured world has learned at Plato's feet; but the other term *analogia*, translated into Latin by *proportio*, that which has regard to the *rata pars*,⁶ the measured ratio of part to part, in detail, has naturally been less interesting to the layman, and has been overlooked. But 'behind the scenes' the artist being also artisan has had much to do with it, and occasionally a Leonardo or a Dürer has reminded the world of its permanent importance.

To Leonardo da Vinci (1452-1519) we owe perhaps most the preservation of faith in the doctrine of *ἀναλογία* or numerical proportion of parts.

³ These were terms familiar in the metrological systems as ordinary names of measured lengths, and usually had fixed values. See e.g. Michaelis on the Oxford metrological relief, *J.H.S.* iv.

^{3a} 'Le préjugé qui existe contre tout ce qui ressemble à des moyens de précision.'—Eugène Guillaume in a *Notice* on the Doryphoros in Rayet's *Mon. de l'Art Antique*, Paris, 1880. The article is most admirable: 'L'originalité peut se retrouver jusque dans le résultat d'un calcul.' Prof. Percy Gardner called my attention to it.

⁴ L. Ulrichs refers to many writers who so use it in *Griech. Kunstschriftsteller*, Bock VII. (Intro.) and Philostrat. Jun. *Imag. Prooem.*: δοκοῦσι δέ μοι παλαιοὶ τε καὶ σοφοὶ ἄνδρες πολλὰ ὑπὲρ *συμμετρίας* τῆς ἐν γραφικῇ γράψαι κ.τ.λ. As an example of *συμμετρία* which is essential if not deliberate I give in Fig. 1 a marking of Gian Bologna's *Mercury*, at Florence. The sculptor has disposed the arms and legs so as

to give the rhythm of the lines of an unstrung bow (see dotted line). The same essential symmetry of parts is to be observed in the body also in its rigid attitudes. I have marked some on the figures in front and profile in Fig. 2. The reader will note the rhythmic effect not only of the lines but also of the masses. E.g. of the rump, the calf, and the heel (A, a and α); and again of C, c and c, in the profile; as well as the correspondence of parts about the axis shown in the geometric outlines (in front view) produced by shoulders, ribs, abdominal muscles, etc.

⁵ Vitruvius defines it so, i. 2, iii. 1; cp. Lucian, *Pro Imag.* 14; Clem. Alex. *Paed.* iii. 11 and 64 (εὐρυθμος καὶ καλὸς ἀνδρὶς); Xenoph. *Memor.* iii. 10, 9; Plut. *de educat. puer.* 11; Diod. ii. 56, 4, and i. 97, 6 (ῥυθμὸς ἀνδριάντων, i.e. general bearing, pose, poise).

⁶ Vitruv. i. 2, p. 12. Proportio quae graece ἀναλογία dicitur. III. i. p. 65. Elsewhere τὸ ἀνάλογον.

He saw that Vitruvius' few lines concealed more than they revealed of the ancient rule, and noted that his *Pes vero altitudinis corporis sextae (partis), cubitum quartae, pectus quartae, etc.*, was only an *example* of ratios. Leonardo's lament '*Defuit una mihi symmetria prisca*' (written by his epitaphist, but quite characteristic of his own modest bearing) is partly regret at not fully appreciating what he knew instinctively to be the principle of complete harmony (or, as Bossi calls it, *la commodulazione*⁷ in respect to *le tre proporzioni che gli antichi distinguevano, la numerica, l'armonica e la geometrica*) in the incomparable Greek work; and partly matter of fact indication of failure to find any more of the discoveries of the Greek masters than

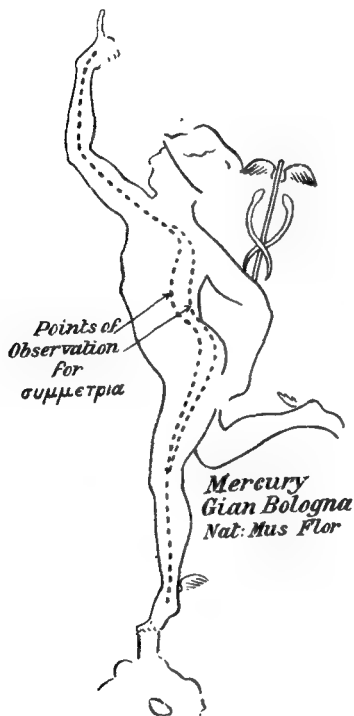


FIG. 1.

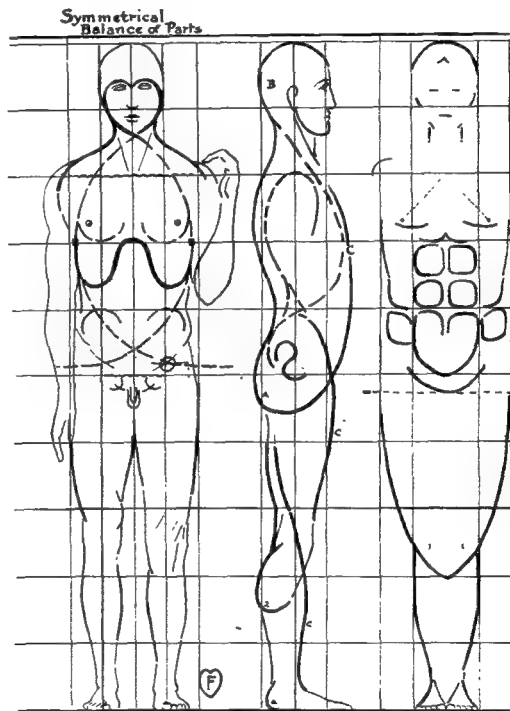


FIG. 2.

Vitruvius and an odd literary note or two had indicated. He was convinced, however, that the Greek schools had a full doctrine of ratios, if only it could be unearthed!

More practical than Da Vinci's indication of the canon is Dürer's contemporary achievement. The accompanying scheme of detailed measure-

⁷ The whole sentence is worth quoting (*Storia delle Arti*): 'Per questa scienza egli (sc. Leonardo) non intendeva una determinata misura generale dell' uomo ma quella commodulazione di parti che a ciaschedun individuo conviene'

—that is a relative, not an absolute standard. Bossi has a chapter, 'Opinioni di Leonardo intorno alle proporzioni del corpo umano,' with a plate giving Leonardo's norm, in his *De Cenacolo*, 1810.

ments is his own, Fig. 3 below being taken from the British Museum copy (Print Room case 36. a. 5) of his *Vier Bücher*, 1528. The system of notation has a formidable appearance, but it is easily explained, and in practice easily reduced to percentage values. Thus the heights marked for the lower leg in profile against the vertical lines are 168, 150, 143, 70, 62.1 and 17 respectively; and these I would read as $\frac{168}{600}$, $\frac{150}{600}$, $\frac{143}{600}$ and so on. They come out as 28%, 25%, 24% nearly, 11.3 nearly, 10.3 nearly, and 3% nearly of the

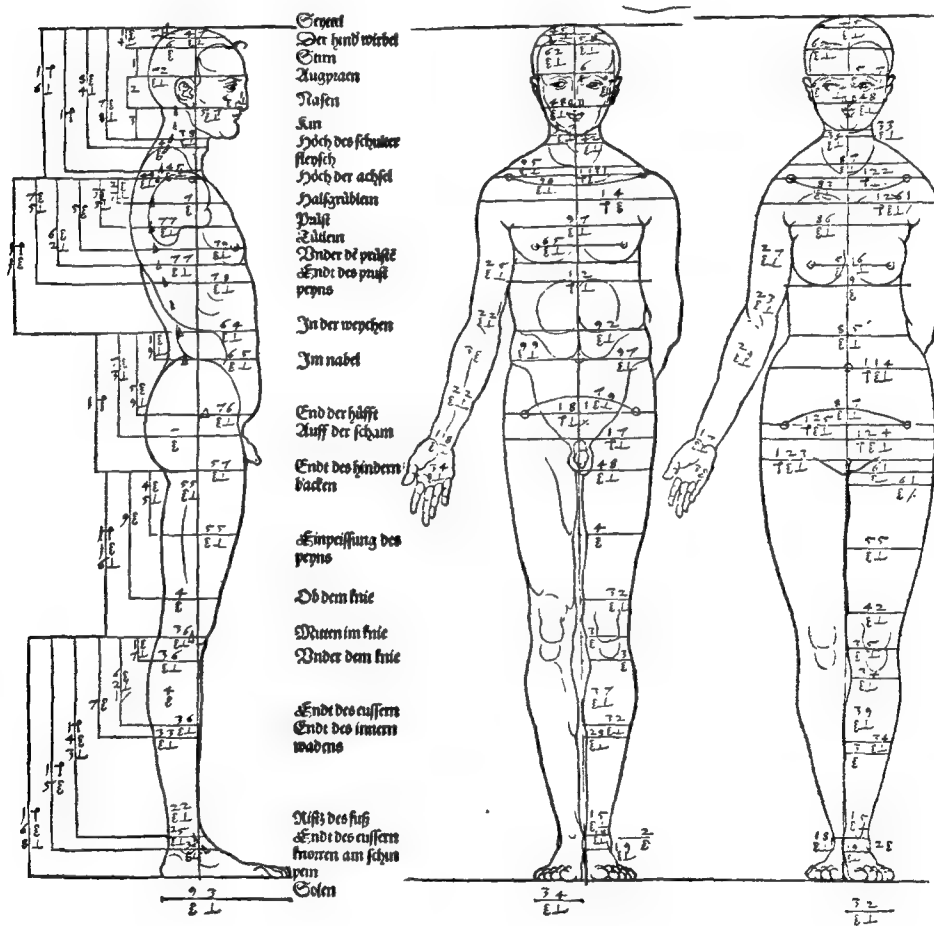


FIG. 3.—DÜRER'S SCHEME OF PROPORTION.

height of the body, and may be compared directly with the percentage scheme which I have shown in Plate VII. ('Geometric Man').

To examine one or two parts in detail: his head is in height $\frac{7}{600}$, i.e., 13%, making the stature to be $7\frac{1}{4}$ heads nearly; his foot is in length $\frac{9}{600}$, which is 15½%, a foot rather smaller than the one-sixth foot which Vitruvius gives as the ancient norm; the breadth of chest between the nipples is $\frac{6}{600}$ or 11% nearly, a narrow chest; shoulders $\frac{14}{600}$ or 23.3%; hips $\frac{10}{600}$ or

18%; while the measurement between the iliac spines shown by the curved line is given as $\frac{1}{6}\frac{1}{6}\frac{1}{6}$ or 13% approx.⁸

Anton Raphael Mengs (1728-79), whom I select for the interest of his suppressed chapter on Proportions, was fully convinced that the Greeks worked by sure rules: 'In quelle figure trovarsi una proporzione impossibile a conoscersi e a praticarsi senza un' arte che dia regole sicure. Queste regole non potevano fondarsi in altro che nella proporzione.' The head according to his canon is shown in Fig. 17. This Flaxman, though less positive about the sure rules, also maintains (to quote him at second hand from Walker): 'It must not be supposed that those simple geometrical forms of body and limbs in the divinities and heroes of antiquity depended upon . . . blind and ignorant arbitration. They are, on the contrary, a consequence of the strict and extensive examination of nature, of rational inquiry, etc., etc.' While he, like Michelangelo, feared the dominance of the merely mechanical, he saw with Polykleitos and Pythagoras that nature must have observable proportions, and that 'Le sentiment y trouvait son exercice et son frein, et l'imagination sa sureté' (Eugène Guillaume).

These are only a few of the great artists of all ages who have preached the doctrine of the Canon; many using schemes of proportion in their own work.^{8a} Those who have seemed to deny the doctrine have, I am sure, for the most part, been misunderstood.⁹ While they deny the control of fixed rules mechanically applied and demand for themselves the utmost freedom in infinite variety of detail, the great artists obey rules of proportion nevertheless, and are even distinguished by the ratios which they prefer. As Kalkmann has shown in his *Proportionen des Gesichts* there are as a matter of fact sets of ratios in the successive schools. These are virtually canons,¹⁰ whether they were ever formulated or not. If a sculptor in Greece could go straight to work upon his marble block in the production of a well-known type, he must have had an absolute mastery of the geometrical relations of the parts. 'The very freedom of Greek sculpture is to a great extent due to its close adherence to tradition.' (E. A. Gardner, Intro. to *Six Greek Sculptors*.) And tradition in the Greek practice is actually

⁸ The symbols used for denominators, placed sometimes under and sometimes beside the numerators, are ¶, a 'line' or 'rule,' $\frac{1}{8}$ or $\frac{1}{8}\frac{1}{6}\frac{1}{6}$ of height; £, a 'Zall,' $\frac{1}{10}$ of the 'line' or $\frac{1}{8}\frac{1}{6}\frac{1}{6}$ of height; L, a 'Teil,' $\frac{1}{6}$ of a 'Zall' or $\frac{1}{6}\frac{1}{6}\frac{1}{6}$ of height. Thus $\frac{14}{\frac{1}{6}\frac{1}{6}\frac{1}{6}} = \frac{14}{\frac{1}{6}\frac{1}{6}\frac{1}{6}}$ and $\frac{1}{\frac{1}{4}}\frac{1}{\frac{1}{6}} = 14/\frac{1}{6}\frac{1}{6}\frac{1}{6} = \frac{14}{\frac{1}{6}\frac{1}{6}\frac{1}{6}}$, while $\frac{14}{\frac{1}{6}\frac{1}{6}\frac{1}{6}} = \frac{14}{\frac{1}{6}\frac{1}{6}\frac{1}{6}}$. The interpretation is my own. Note that in the German lettering peyn = pein = Bein.

^{8a} I suspect many others of deliberately concealing their use of measurement. Dürer complains that Jacopo de' Barbari refused to give him the secret of the scheme of proportions he

used. The case of Mengs is remarkable: his Italian, German, and English editors (see Bibliography) omitted his exposition of his scheme, with an apology for their own obtuseness.

⁹ For example, I think Michelangelo is misunderstood when he says 'che le proporzioni non cadono sotto alcuna misura di quantità' (according to Vincentio Danti) and 'chi non ha le seste negli occhi non troverà mai artificio.' He is rightly denying any absolute set of measurements for the human frame, and any mechanically binding rule.

¹⁰ See *infra* my attempt to plot out Kalkmann's numbers graphically.

expressed in ratios reducible to a scheme. This, at least, it is in part my object ultimately to show.

The masters in art were often guided by immediate insight without conscious calculation. Lesser men may nevertheless profitably observe their practice in its calculable results. And observers have been many, as the Bibliography (*infra*) suggests. These observers unfortunately employed different *notations* in recording their discoveries; also they often attempted to give absolute instead of proportional measurements, and to find the universal norm instead of the type; and they did not always describe relations that were genuinely anatomical. To these defects is due the oblivion which has fallen upon them (Dürer's brilliant and useful work is a notable example), and these defects might, I think, be remedied by the use of the scheme of geometric and numerical notation which these pages have been written to expound.

Before explaining my scheme, I should like to mention one notable suggestion, and to glance at the position of modern anthropometry.

II.—*The Theory of the Inscribed Figures of a Circle.*

Jay Hambidge and W. W. Story have striven to prove,¹¹ one for Greek architecture and the other for the human figure, that the units of measurement are to be found in the sides of the regular figures which can be inscribed in the circle. Story has used also units other than the sides,¹² and by applying them chiefly for vertical heights and horizontal widths in his system to the construction of a new canon he produces a normal figure of great beauty and persuasiveness. Mr. Hambidge, having to deal with architecture, lays stress on the elements of the Greek curves, and remarking 'wherever precision and subtlety of curvature combined with refinement of symmetry occur in classical masterpieces of formal art, there is a most complete agreement with the proportions to be found in the regular forms of nature,' applies the lengths of sides of the inscribed figures to 'deriving' secondary circles to 'determine the disposition of the elements of symmetrical and proportional form.'

I have plotted out, in a more particular application of my own, some of the resulting curves on paper ruled in decimal squares, with results very closely in accord with other observations taken in quite a different aspect. These results I must defer to a later paper.¹³ I should like, however, to submit the following examples of some curves resulting from the use of the inscribed figures. They occur in great wealth in the outlines of the human body, of which I have worked out many applications.

¹¹ The former in a paper, 'The Natural Basis of Form in Greek Art,' read before the Hellenic Society in November, 1902; the latter in his 'Proportions of the Human Figure,' 1864.

¹² *E.g.*, not only the side but also the height of the inscribed figure.

¹³ Mr. A. T. Porter has shown me a method by which the length of the sides can be determined by the simple use of ruler and compasses, *i.e.*, by purely geometric method, without use of protractors or reference to angles. Mr. G. H. J. Adlam has shown me another method.

A system of n circles in binary relation (diameters as 1:2:4:8 etc.:A in Fig. 4) produces $3n$ magnitudes, the lengths of the sides of the inscribed figures (see uppermost figure). It gives $6n$ magnitudes if the heights of the inscribed figures are also taken in: to these the lengths of radii may be added. One set of these is indicated by the group of five vertical lines in the middle of Fig. 4. These may be arranged, as in the set marked $\triangle \square \Delta$, to plot curves. By combining such sets as in right-hand diagram, we get new

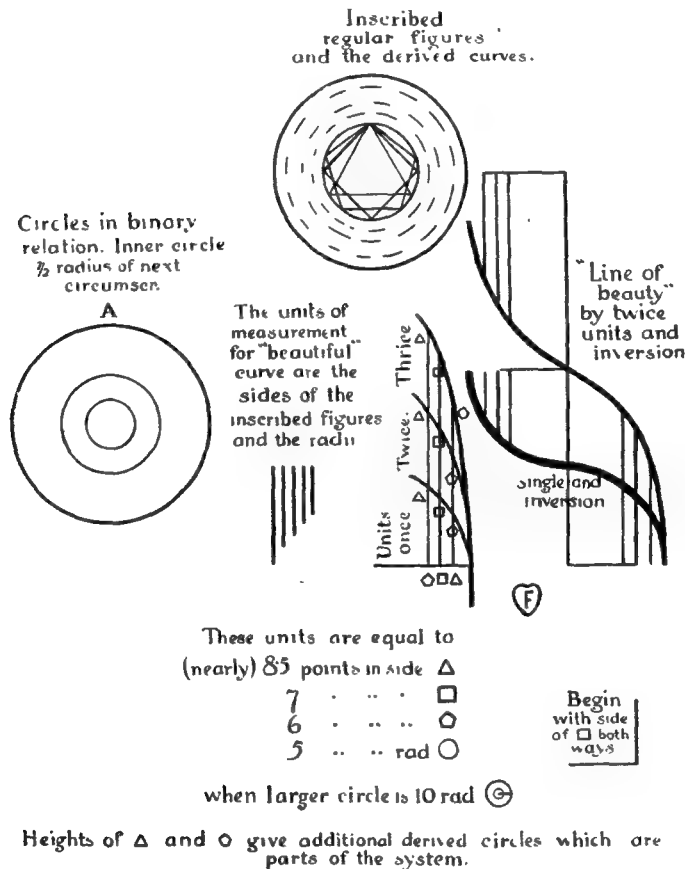


FIG. 4.

magnitudes and corresponding sets of curves. My suggestion is merely that such a system would be perfectly accurate and infinitely applicable, and yet would vary automatically with the change of any one magnitude.

We may have, in this suggestion of a geometric system, half the solution of the ancient Canon problem. It came to this: Could the Greek sculptors, who worked so closely to type and proportion that we have the antique Attic, the Polykleitan, the Lysippean, the Praxitelean statuary, distinguish-

able by proportion of parts,¹⁴ have possibly attempted to apply the foot-unit or the palm-unit or the finger-nail¹⁵ unit, standardised or not, to work so delicate and small as the details of the Cassel Apollo, the Doryphoros and Diadumenos, the Hermes, the Praying Boy, the Youth by Stephanos, or the Aphrodite of Cnidus? And if they worked by a standard now lost of more exact magnitudes, how did they endure the labour of converting by fractional reduction the standard tables for the particular statue on which they were working—for hardly two statues are of the same absolute height¹⁶—by any method which was known to them? That is the problem, and its solution has been awaiting an appreciation of the use of a group of *geometric* ratios which would be constant so long as any one of them remained unchanged, i.e., through the continuance of a piece of work. I say ‘appreciation’ because there is no novelty, I suppose, in the fact that the regular inscribed figures are capable of the treatment suggested above: the difficulty has been lack of proof that the Greeks used those in particular, and of any urgent reason why they should.

Why could they not, for instance, have said something similar to our universal *per cent.*? The answer is, I think, clear. Because it is of no use to say *per cent.* about a ratio unless you have instruments of precision^{16a} which enable you to find immediately and easily the measurement which that makes on any given line. If we say that the upper arm-bone is $\frac{1.9}{100}$ of the height of the body, the lower arm $\frac{1.4}{100}$, the shin-bone $\frac{2.2}{100}$, and so on, these are only now useful observations when we have section scales and proportional compasses and paper ruled in millimetres. The construction of a finely divided scale computed for each new statue would surely have been intolerably laborious. It seems obvious to us to say ‘Measure off 20 millimetres’; but the reproduction of perfect millimetre scales is a benefaction of modern industry which was unknown in Greece.

Now that squared paper is well ruled and millimetre¹⁷ scales reliable, so that one may have for every record of a human figure as large as this page 2,000 and more squares on which to mark a norm and record divergencies we shall not need for the work-room the inscribed figures of a circle; but the geometric figure was almost the only instrument of precision of equal applicability which the Greek artist could use or make. He could say with assurance, ‘When the upper arm (humerus) is as long as the side of the

¹⁴ This may be taken as beyond dispute. There are recognised differences in these types, not only of artistic value but also of arithmetical. See Kalkmann, *loc. cit.*, on the measurable change in proportions of the face. And everybody alludes to ratios in order to distinguish, e.g., the Apollo of Tenea or the Doryphoros from the Hermes.

¹⁵ Pindar, *Ol.* viii. 158, speaks of *πηχῶν τεσσάρων δακτύλων πέντε*.

¹⁶ Two thousand millimetres is an average measurement for the height of the heroic figures,

but the Oxford metrological relief figure has outspread arms which extend 2057 mm., the 57 being just enough to cause intolerable trouble in the measuring—too little to ‘count,’ but too much to ignore.

^{16a} Engineers’ and architects’ comparati scales particularly.

¹⁷ We use paper ruled in hundredths because of the convenience of decimal records in Europe. But we may remark that the decimal system is not intrinsically the best.

inscribed triangle, the lower (with the wrist) is as long as the side of the square,' and always have a ratio both useful and precise. And if it was such a ratio he used, it was the ratio of natural geometry.

III.—*Method of Modern Anthropometry.*

The indications of the ratios of the ancient canons, numerous as they are, are still too fragmentary to enable us to reconstruct the canons themselves, and so to show deductively their application to ancient statuary. The modern method is inductive: it proceeds by examination of the statues to establish the system of the existing proportions. In this it has been much assisted by modern anthropometry in general, which as a branch of scientific anthropology is proceeding by the same inductive method, and has already made considerable progress in mapping out the ground to be surveyed, as the records of topographical anatomy, biometric investigation, and tabulations of racial differences,^{17a} fairly show.

Both for measurement of statuary and the measurement of living bodies we have until recently lacked instruments.

For the mensuration of so living a piece of nature as the body, observation and collation were demanded on a scale to which its recording and comparing apparatus of the mediaeval world was not equal; a century of modern anatomy and a half-century of reliable graphic records have only recently furnished us copiously with facts for this branch of biometric. The labours of many pioneers have at last summarised some of the first available results,¹⁸ and the museums, treatises on anatomy, and records of the proceedings of special societies furnish thousands of models, casts, drawings and photographs really trustworthy for reference and collation. The makings of an apparatus criticus for the mensuration of statuary are at last in our hands.

For example, A. Kalkmann, in 1893, published a monograph (above mentioned) on the proportions of the parts of the face in Greek statuary which, in addition to the thousands of measurements which he himself had made, gives many of the observations of masters and writers of the Classical Age, of commentators in the Middle Age, and of exponents in our times.

The extreme care given to the smallest dimensions and the lucid systematic arrangement of the tables of comparison which Kalkmann's monograph shows, mark an epoch in the scientific treatment of the subject. All that remains to be done is the reduction of all these absolute millimetre measurements to some common scale or scheme—a large task! Meanwhile we have the millimetres, which is much.

^{17a} Professor W. M. Flinders Petrie has contributed much material; e.g. 'Early Egyptian Skeletons' (measurements) and 'A Systematic Study of Jaws,' being chapters iv. and vi. of *Tarkhan*, ii., Brit. Sch. Arch. Egypt, 1912.

¹⁸ See the Proceedings of the Anthropological Societies of Paris, London, Berlin, etc.

Professor Karl Pearson has won much gratitude for *Biometrika*. At least sixteen years ago I was assisting him in making records of physical characters of school children and students. See *Proc. Roy. Soc.*, vol. 69, p. 332 (1902).

Almost at the same time, in 1895, the publication of Professor G. Fritsch's monograph *Die Gestalt des Menschen*,¹⁹ confirming the observations of C. Schmidt²⁰ in 1849 and of C. Carus²¹ in 1874, gave a stimulus and a method,²² which had before been lacking, to the general observation of human proportions in modern races and for the practical uses of art.

Finally the recent formation of a Committee of the British Association (referred to below) to guide Anthropometric Investigation has raised the study to the position of an acknowledged science; and the Congrès International d'Anthropologie (Geneva) in 1912 formulated an International Agreement for the unification of Anthropometric Measurements.

In publications on anatomy for the instruction of medical and especially surgical students, much exact work has been done which the graphic reproductions make available in such work as Mr. L. Bathe Rawling's *Landmarks*, with its system of median and lateral planes, and the plastic in such modelling as that exhibited in the cases in the Museums at the London Hospital and Guy's and other Schools of Medicine.

In all these geometric arrangement and the measurement of angles and distances play large parts. Many of them are accepted by modern surgery for guidance in operative practice.²³

My conclusion is this. It is becoming increasingly possible and desirable to have a formal quantitative knowledge of the proportions of plastic works of art (a scientific andriantometry), expressed in positive symbols of ratio and represented graphically by a diagrammatic method, which shall be independent of perspective and all the artistic devices by which the eye is satisfied and deceived.

It is not at first sight obvious that one cannot see the width of a full-sized human limb, except, *theoretically*, at infinity. Let *E* in Fig. 5 represent the eye of an observer of a cylindrical object, *cabm*. Then it is impossible at the same time that a ray of light from point *a*, the last point visible at the tangent on one side, and also a ray from *m*, its diametrical opposite point, should both reach the eye. The last visible point, *b*, on

¹⁹ In the *Verhandl. der Berliner Anthropol. Gesellschaft*.

²⁰ *Proportionschlussel*.

²¹ *Die Proportionslehre des mensch. Gestalt*.

²² It is a method of anatomical values, *graphic*, taking the vertebral column for its modulus and using the principal articulations of the skeleton for its mensuration scheme. It is, for a general estimate of a figure, excellent; I have made much use of it for first observations; and have found its mnemonic value high for the practical student of elementary artistic anatomy. Its defects are (1) lack of precision of points, (2) use of extremities of vertebral

column as standard points, (3) use of the deeply hidden head of femur as a standard point, (4) applicability to the erect figure for full front view only. The employment of Fritsch's canon for comparative measurements I have shown in Fig. 11. The measurements are mine.

²³ A single example of practical judgment based on a geometric marking on the body may be quoted: Michaelis believes that the more perfect the rhombus which he indicated on the surface in the lumbar region, the better the conformation of the pelvis for normal parturition.

the side opposite to Ec , is nearer to the observer than m , and ab , the apparent width of the cylinder, is smaller than am , the true width. The observing eye at E never sees the maximum width, cd , at all, though binocular vision helps the observer to see a little more.

The superiority of the *observed* fact on which modern realism in artistic work and judgment insists makes it the more necessary that we should also know the true distances, the often less pleasing facts. For the problems of artistic judgment are in many cases insoluble through want of just that knowledge. This is accepted in the methods of all those students of anthropometry who reject all focal measurement by converging rays of light (such as photography gives, and the rule-of-thumb measurement of the drawing school), and who by the use of calipers and sliding-beam compasses²⁴ take the diametric size of limbs and other parts.

But here a difficulty occurs of considerable practical importance: the record made by the calipers will be, of course, the distance cd in Fig. 5 (or even, in figures of shape $anopb$, the larger distance, nn'), while the eye will have been used to seeing it as ab ; in other words, the most accurate record

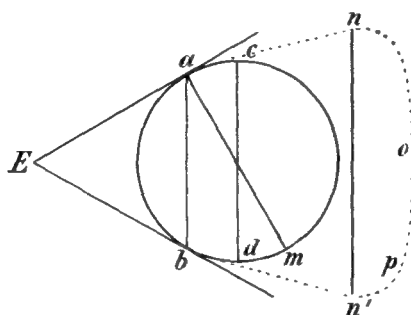


FIG. 5.

of true observations, such as Story's or Kalkmann's, if made on a plane surface by delineation, must necessarily *look wrong*. Seen from a point usually above or usually below the level of the eye, parts will have a remembered dimension which will be contradicted by the graphic record in true magnitudes. If, now, in order to please the eye, to correct the perspective in unusual positions (*e.g.*, as of a statue on a pedestal as high as the observer), and for other artistic reasons known to the artist, the part be made a little larger or a little smaller than the normal,²⁵ this will be recorded by the exact measurements as an actually distorted or even deformed figure. For this there is no help, but the practical difficulty makes against the ready acceptance of the true record; for there is not, as in the case of architecture, a simple allowance which at least may be made in a sufficient number of

²⁴ The Committee on Anthropometric Method of the British Association, in their report of 1909, indicate the best instruments.

²⁵ This, I am convinced, the Greek masters

did in plastic art as well as in architecture. This, too, on which I wish to insist later, is one of the most useful results of applying actual measurement.

cases; there is an ever-recurring adjustment necessitated by the enormous number of planes, undulations, and intersections which the human figure admits. The true record of the sizes, the actual magnitude of the material medium which the artist used in order to get his effect of beauty, is on paper often displeasing to the eye.

We shall have, perhaps, a representation inartistic, crude, even, it may be, ugly, but we shall have at least the constructive *ἀναλογία* of the figure, *le proporzioni numerica e geometrica*; and, in so far as and wherever the knowledge of proportional magnitude can go, we shall have achieved within the limits of the artist's small demands a full delineation of the anatomical facts. The judgment will no longer struggle in the maddening attempt to reconcile the varying evidence of foreshortening, optical delusion, stereoscopic effects of our double vision, artistic prejudices, and the prejudices of previous knowledge, when all we want to know is how much of space is occupied by bodies and parts out of which the artist is to make, by disposal and modification, his works of art.

In the case of architectural plans and elevations the similar difficulty has survived the prejudice, and the usefulness of the elevation has secured it a tolerance which the human 'elevations' cannot yet expect.

I am, nevertheless, so fully convinced that photographs and artistic drawings of statuary are useless for purposes of exact comparison of proportions, that I believe the orthogonal record will be adopted for all reliable comparison, by those who have to pronounce judgment on statues, and whose high gifts in judgment of great works of art are often embarrassed by the ambiguity of adjectives, *large*, *small*, and the like, meaning, as they are naturally used, *large in appearance*, *small to the observer in such and such position*, and the like; and the critic would be glad to be able sometimes to refer to actual dimensions in more mathematical terms.

The new Athena, for example, which is placed at Oxford side by side with the Marsyas of Myron, has certainly a slender youthful appearance, but this is what the artist *gives* us; actual measurement showing that the shoulders are relatively wider than the average (see Plate IX.). I measured this half-a-dozen times to convince myself of this surprising fact. The Cassel Apollo again has in *effect* a graceful slenderness of hips, but the actual arithmetical ratio between the depth (front to back) of pelvis and length of leg is larger than the normal (see Plate VIII.). Again I have found by many observations that the Aphrodite figure is of a geometric type so similar to that of the Apollo that no marked difference is shown on my scale, and the supposed general difference in ratio of shoulders to hips does not exist. As Professor Fritsch has pointed out, the Aphrodite of Melos is larger on one side than on the other.

IV.—A *New Recording Instrument.*

To resume. If there is a Canon of proportion implied in the best Greek statuary and if the indications of Vitruvius and others are references to it then it is worth our while to try to discover it. For this we need first a synopsis of many careful records made on one scheme.

And, since it must be admitted that no extant Canon has been offered which can be accepted as undoubtedly the Greek, observers may as well fall into line with the Anthropometric Committee of the British Association, and employ modern methods of taking dimensions of the human body, in terms capable both of graphic and of numerical statement, fit to be submitted to the analyses used in general biometrics.

I have endeavoured to keep in mind, while preparing a scheme which would comprehensively satisfy these conditions, also the later application* of the results to ethnographical comparison. We want to record anatomical facts which may help us to classify according to schools and races. It was indeed a general survey of the ethnographic problem which Professor Flinders Petrie kindly gave me about five years ago which first convinced me of the need of a new instrument for recording the facts.

I propose to be content with about 500 determinations of points in the human figure. The labour of making 500 points of every figure examined is much reduced by the plotting of curves on paper already ruled in small squares; and is again much reduced by the guidance given by a normal figure faintly traced on the squared paper on which the plotting is being made.

By collating and digesting ancient and modern systems of proportion, by comparing together the best anatomical drawings found in works of science, and by reducing all these to that representation which is not seen in the works of art themselves, viz. the quite erect front and profile, I have produced²⁶ a figure (see Plate VII.) which I used as a norm. I have been

²⁶ The investigation, occupying the leisure time of five or six years, and encouraged by a grant from the Treasury, has been research work in Professor Ernest Gardner's department (the Yates Archaeological) at University College, London, with some special work in the Slade School of Art (Professor Thane's course in artistic anatomy, with valuable counsel from Professors Tonks and J. Harvard Thomas), also by the necessary practical anatomy and observation in the dissecting-room at the London Hospital Medical College (for which the Dean kindly offered me special facilities, and the lecturers and demonstrators in anatomy many valued hints, especially Major Rutherford, R.A.M.C., Mr. Walton, and Mr. T. C. Summers); by

detailed measuring of casts and marbles at the British Museum, at the Ashmolean, the Birmingham Art Gallery, and in some continental and some private collections; and by measurement and observation of the living model in studio-work and in photographic studies of the nude, by means of which one's own observations are enormously extended; and, finally, by much note-making from monographs and the larger publications of many of which I have given the particulars in Bibliography (*infra*, p. 256). I have had the privilege of consulting many London painters and sculptors, and owe to members of the Art Workers' Guild (especially to my friend Mr. John W. Batten) thanks for a willing hearing and much

encouraged by the confirmation received from many sides—especially of art and of anatomy—but I would ask leniency towards my results, inasmuch as they are to some extent still tentative, and are being offered at this stage for the purposes of reference and comparison.

This normal figure²⁷ I use reproduced as I have said, and then over it I mark the sizes of the observed figures in thicker lines upon it.

The advantage of using a cheap faintly printed copy of the normal figure for each record is chiefly in the economy of time. All those parts of the statue under examination which are found to be 'normal' need not be marked at all; and the variation can more easily be marked upon the normal figure.

The scheme had to satisfy three requirements.

The first requirement was to obtain a definite geometric position in space for each point of the body which was to come into mensuration. This we have obtained by making coordinate planes of projection of two planes at right angles each passing through the centre of gravity of the body, and conjointly containing all the fulcra, viz., the occipito-allantoid, the lumbosacral, the hip-joint, the knee-joint, and the ankle-joint in the transverse plane, and all the points of centre of gravity of the correlating parts (*e.g.*, the two corresponding symmetrical halves of head, thorax, pelvis, etc., the two arms, and the two legs) in the other.

The next was to mark out on each of these planes the normal position of all the important points, of which the chief are in the *bony* framework. These I have shown partly as curves in *Geometric Man* (Plate VII.), to which I find in practice all varieties, racial, sexual,²⁸ and individual, can be conveniently referred.

The third requirement was to find sufficiently precise indication of ratios which would remain unchanged, or of which the changes would be easily calculable in the many positions in which the statues are disposed. This is

encouragement. I have also especially to thank, among surgeons, my friends W. Clowes Pritchard and Norman Bye. Mr. Basil Winsor kindly prepared certain of the geometric figures. Dr. Overend, of Hastings, has kindly given me the benefit of his great knowledge of radiography. Innumerable observations of detail, many well known to surgeons and anatomists, have been incorporated without comment, such as, for instance, Merkel's norm, Mikulicz's line, Brucke's line, Bryan's triangle, Camper's elipsis, Michaelis' rhomb, Nelaton's line, Gibson's triangle, and the topographic markings by L. Bathe Rawlings. Anything that could be found with sufficient confirmation in any system has been used, and I shall be grateful for other

suggestions and corrections. I am already much indebted to Mr. G. F. Hill.

²⁷ A copy of the full scheme in true-to-scale reproduction is obtainable from Messrs. Stanley & Co., 8 Victoria Street, Westminster: but a much cheaper reproduction suitable for recording measurements is by ordinary engineers' blue-print.

²⁸ For use of the same scheme for the female figure the details are indicated, viz. (see Plate), the breast measured by the radius with centre as indicated, and the pudenda as shown in the margin of scheme. Other sexual differences are not prominent in Greek statuary, and hardly require a separate scheme. See note 31.

satisfied by the scheme I submit (Plate VII.). Many of the actual magnitudes strongly marked out by the construction lines never vary at all, in any position, for example, between the acetabula, between the glenoid cavities, between the eyes, ears, etc., lengths of bones of arms and legs, width, height, and depth of pelvis, and of course the sizes of skull in all its parts.

The method is that of descriptive (solid) geometry, viz., reference of the position of a point by orthogonal²⁹ projection upon co-ordinate planes at right angles and the measurement of the distances of two points in space by the distances made by the projecting lines upon the planes; similarly of lines and curves, by plotting them in the ordinary way of graphs upon each plane in turn.

For example. Let n in Fig. 6(a) be the point of a nipple, and let its position be referred to the two axial planes of the body in Fig. 6(b), $XX'y$

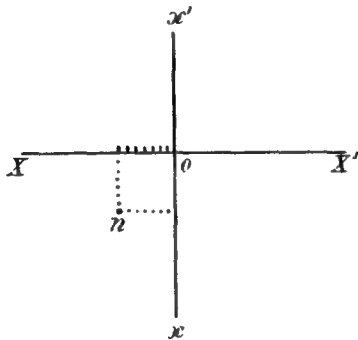


FIG. 6a.

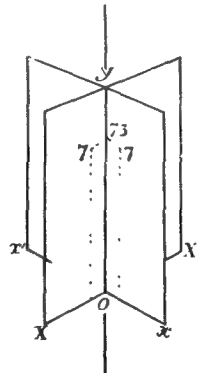


FIG. 6b.

SYSTEM OF PLANES.

and $xx'y$ (the ground plan of the system showing them in Fig. 6(a) as XoX' and xox'). The projecting lines of n give on Xoy the coordinates (7, 72) and on the intersecting plane also (7, 72), where the 7 represents 7-hundredths of the height from sole to crown and 72 represents 72-hundredths.

If the two planes be ruled by squared-ruling in tenths and hundredths of the total height the place of n is instantly fixed and found, and its distance from, e.g., the point n' of the other nipple is immediately seen to be 14-hundredths. Since the ordinate oy is the same for both planes it will be

²⁹ This is important. The projecting lines co-ordinate planes. Perspective projection is and planes must all be perpendicular to the inadmissible.

sufficiently indicated by three quantities (7, 72, 7). So described, for examples:—

The tip of the nose would be	...	..	(0, 90, 6)
The patella would be	...	...	(0, 26, 3)
The lesser canthus (external commissure of the eye) would be	...	...	(3, 93, 4)
The junction of 8th rib with 7th (seen in deep inspiration) would be	...	...	(3, 69, 7)
The inner end of collar-bone would be	...		(1, 81, 4.5)

If these and all the other important parts (about 500) be determined and the graphs drawn the figure will appear plotted out in proportional measurements to $\frac{1}{200}$ of the whole height, say a measurement for every three millimetres. Seen from a point vertically above the axis the system thus appears (Fig. 7); $oaAbp$ and $jeAfk$ are the upper edges of the vertical planes shown in Figs. 6(a) and 6(b). All measurements are taken by points in projectors falling *vertically* upon these planes. For example, the distance $n-n$ between nipple and nipple is the distance between two planes passing

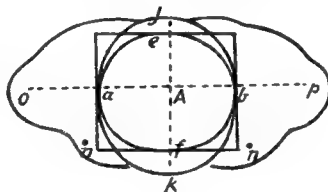


FIG. 7.

through n and n , respectively, parallel to Ak , at right angles to oA . Neglect of this principle will produce an unreliable variety of readings, because foreshortening, the undulations of curves, and a dozen other slight causes interfere with almost every other method. The height of a statue in relation to its breadth cannot, for example, be truly taken by radii from a single point.³⁰ The labour of marking out the positions of points on the principal, the transverse, and the horizontal planes is well rewarded by the accuracy of the measurement. The 500 points which fix a carefully plotted 'elevation' front and profile of a single figure may profitably be augmented by additional measurement of the body in its posterior aspect. In other papers I hope to be able to give the scheme for the back muscles, but for the present purpose it is sufficient to give anterior and lateral aspects only, as in Plate VII. I think, also, it may be well to publish a chart for the female figure, but the differences are *not, I find, sufficiently important to alter the scheme*. On Plate VII. I have marked the centres and radii of the normal mamma in front and profile, and the exact dimensions for the pudenda muliebria. Whether, as it is alleged, great differences can be established between the male and female skeletons and musculatures will appear from the records.

³ And therefore not by photography.

Hitherto I have used with complete comfort this same scheme for both.³¹ In such a system of coordinate planes the body to be measured is placed in an erect position, so that the line of intersection of two imaginary planes at right angles may pass through the points shown on the vertical axis, *o—o*, of the scheme, Plate VII. (*oy* of Fig. 6). For convenience these may be considered separately. The front view in Plate VII. shows the body placed against a background parallel with the transverse plane, so that *o—o* forms also the edge of the median plane (for the moment invisible). On this background the points of the body, viewed each one along its own line to the background, may be registered whenever they form part of the outline.³²

A more complete registration can be made on a sheet of glass placed before the body and parallel to the transverse plane, *through* which all front-

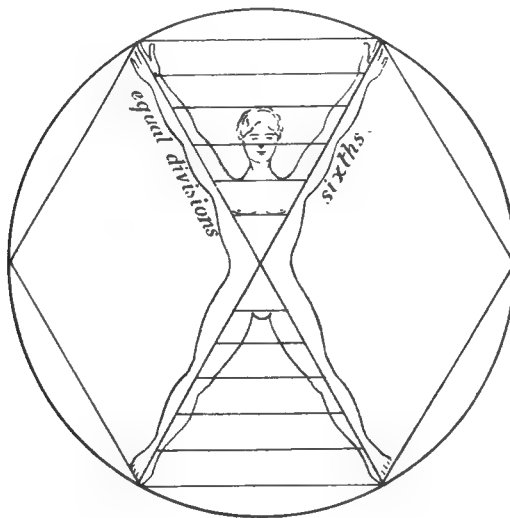


FIG. 9.

view surface markings are observed by the eye perpendicularly to the transverse plane.

Let the student consider a body behind a sheet of glass so placed. Let him then proceed to trace out the geometric scheme of the straight lines of

³¹ No such difference is to be found distinguishing an Apollo from an Aphrodite in Greek or Graeco-Roman art as those with which we are familiar in the drawings of Rubens and Dürer. In the former there exists a beautiful Hermaphrodite type (see Reinach, pp. 367, 371 *sqq.*) which is really Hermes-Aphrodite and which could not be composed out of the male and female norms given by Dürer for example. Dürer's female (see above, Fig. 3) is not merely

sexually different from his male; it is also to some extent genetically different, and this difference does not exist in the Greek statuary.

³² For those who are not interested in the geometric details it may be sufficient to say that a model standing in a corner of a room would give in shadow outline our figures of Plate VII. on the two walls, if the light were made to fall perpendicularly on each wall in turn.

the scheme. Let the model so placed stretch out arm and leg ^{32a} (Figs. 9 and 10) so as to make an oblique line at an angle of 60° with the ground. This line will pass normally through the umbilicus, the mammilla, and the acromion process. It will then give the extreme possible length of the body (and, I am inclined to believe, the *normal* length). The ratio of this length to the sole-to-crown standing height is as $4 : 3$. As we shall desire to use decimal or percentage notation for records we may count this ratio as $133\frac{1}{3} : 100$; but I believe nature's ratio ³³ would be $132 : 99$ (viz., $12 \times 11 : 9 \times 11$).

Let the model now stretch the other arm and the other leg at the same angle. The lines now traced on the glass will cut each other (see Figs. 9 and 10) at 60° in the umbilicus, and will make, when the figures are completed by horizontal lines, two equilateral triangles.³⁴

It will be convenient now to mark in the points at the extremities of the vertical axis, the full height of the standing figure as ordinarily taken. This if the model is normal will be, I think, 99 (as against 132 allowed for the tip-to-tip measurement). For convenience of reference let us call this height 100 points, and then immediately other equilateral triangles can be marked off, viz., at 50 of these points from the ground an equilateral triangle whose base is level with the pubic crest,³⁵ whose height is 10 points, and whose apex consequently is in the umbilicus. Above the umbilicus let 20 points be now measured along the vertical axis of the figure, and an inverted equilateral triangle can be made whose base angles are at the acromia. At half the height of this triangle another may be marked off whose base will lie in the sterno-xiphoid plane. On the inter-acromial line just found, if another triangle be erected, its height should be 20 points and its apex in a normal figure should be at the highest point in the skull. We have now the (thick-lined) scheme of proportions of Fig. 10. I have called this the Rhombic type because so many important points available for measurement and well marked anatomically are found at the angular points

^{32a} In order not to disturb the median line the body must be artificially supported, or laid at rest on the back, when the measurement may be taken perfectly.

³³ I do not believe that our decimal notation is fundamental. Obviously it does not use the prime numbers so simply as the 66, 99, etc., $2 \times 3 = 6$, $3 \times 3 = 9$, $2 \times 3 \times 5 = 30$, $2 \times 3 \times 11 = 66$, and so on. Tens and hundreds are secondary.

³⁴ In the hope of interesting others to work out the geometric hints of this tip-to-tip measurement (which I have reluctantly abandoned in favour of the ordinary standing height) I subjoin a note-book jotting of some remarkable results which I got from pursuing it a little further. In addition to the St. Andrew's cross and inscribed hexagon (which has long been known) I found that a further

subdivision into sixths brought one to those same points and planes already found to be significant and anatomically good. The further subdivision into sixtieths I have done with remarkable results, but I think if some one would try a subdivision into 36ths the results would be very interesting. Indeed, I think a scheme of proportional measurement recorded on the scheme of Fig. 10 would be theoretically sounder than that of Plate VII. (and, practically, the same), inasmuch as finger-tip to toe-tip is rational, whereas heel to crown is not, the heel being an accidental stopping-place.

³⁵ I had put it two points lower, being led astray by the models I had used; but I am indebted to Mr. Tonks for the correction. He would wish to see it raised two points more.

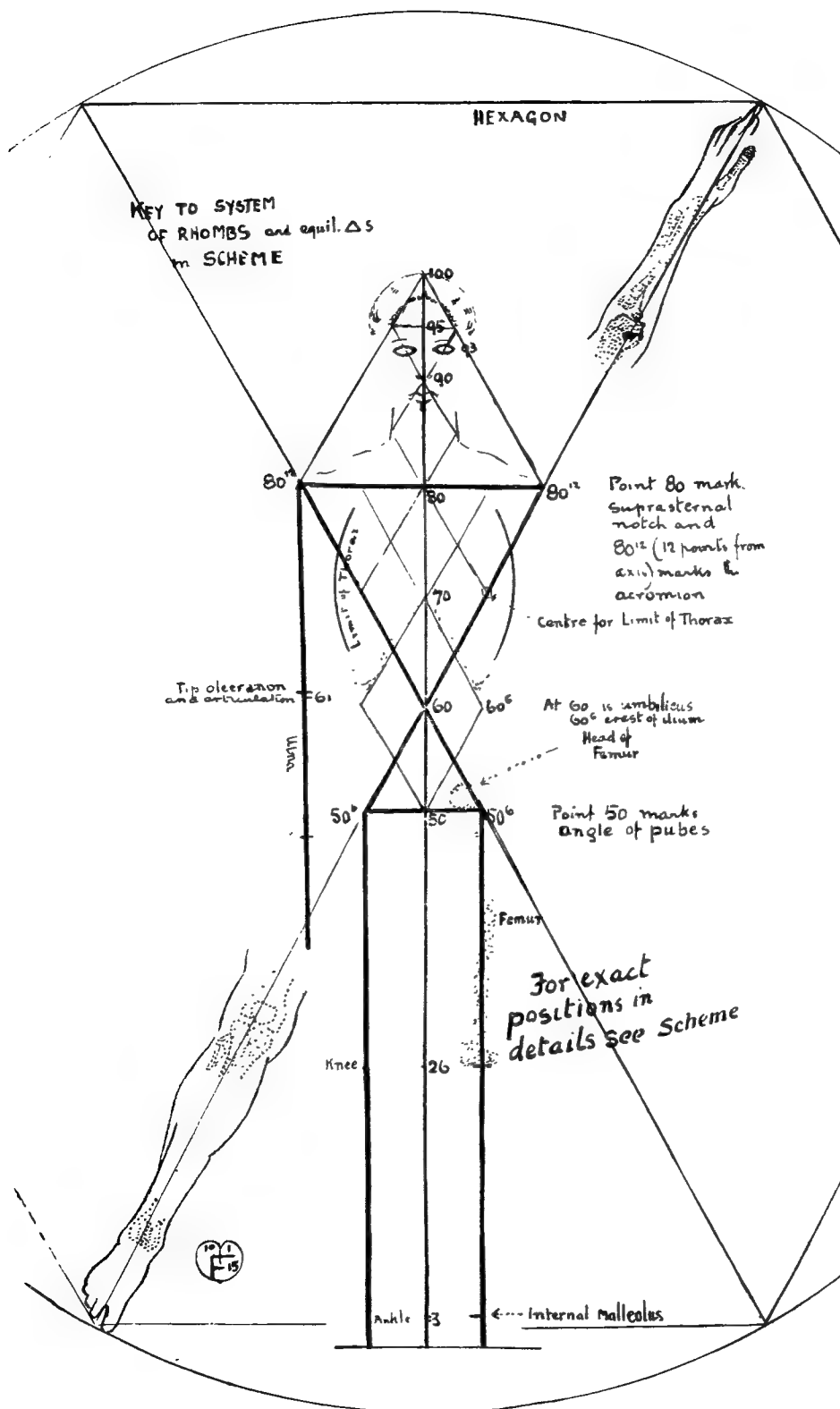


FIG. 10.

or at the points of intersection of the rhombs which arise from continuing the development of the system, as depicted in faint lines in Plate VII. (It is distinguished from the slightly shorter and squarer type of figure given by a system of squares shown in Fig. 12.) Other points in the completed scheme are more conveniently referred to the squares made by vertical and horizontal planes intersecting on a system of points and tens of points.

The whole result is condensed into the system shown in the scheme, and there for the present I must leave it: a detailed explanation would fill a large book.³⁶

Le plus fort est fait, and since we have here also the points of measurements for the arm-bones, we have already ten cardinal points of the skeleton for the determination of any body. On these alone some important generalisations might be made. Fig. 11 shows the application to the notification of particular variations from the normal to be observed on a dozen statues in plaster or in marble to be found in the museums of Europe, and recorded (by myself) on Fritsch's canon which has sixteen or seventeen points. The markings are, obviously, roughly made for general comparison only.³⁷

A remarkable indication of chronological data is suggested by the grouping of these twelve markings. They are chosen casually from about forty markings made at Prof. Ernest Gardner's suggestion because of the uncertainty or special interest of their dates. I took this small selection without any other consideration than that of illustrative values and spread them out in the order of their complexity, taking first those shown on the highest row because their marked variation was slight, and then those of the second row having more variation from the normal, and last those which varied considerably. And then I observed that I had unconsciously arranged them, with one exception, also in chronological order! The simplest are of the fourth century B.C., while the complex variations are in figures of the sixth century B.C. The one exception is interesting: the Athlete pouring oil, which is generally classed doubtfully, as of the fifth century B.C., appears among the fourth century figures.

Now if these very broad lines of differentiation give in so few figures so interesting a classification, may we not hope for much when mathematical biometric analysis is applied to detailed markings in the full scheme? Some of these (the Doryphoros, for example) are markings of Bruckmann's plates, very excellent reproductions, but still not the same thing as the cast. The

³⁶ One small discovery worthy of note is that of the geometric scheme of the thorax in front view. From a centre which coincides at line 60 with an angle of one of the rhombs (and marked in Plate VII. by a small square just below the mammillary point) with radius terminated by 5th cervical and 5th lumbar respectively, an arc may be drawn which marks the geometric outline of the ribs. Others are schemes for pelvis, and thorax profile, *vide*

infra, p. 16.

³⁷ If it should be asked why, since a roughly made comparison like this gives such results, it should not be *sufficient* for practical purposes, the answer is that it would be sufficient for each observer for himself, keeping to his own method in details, but that the observations of two observers could not safely be compared. General comparisons, *without precise points of reference*, are unreliable.

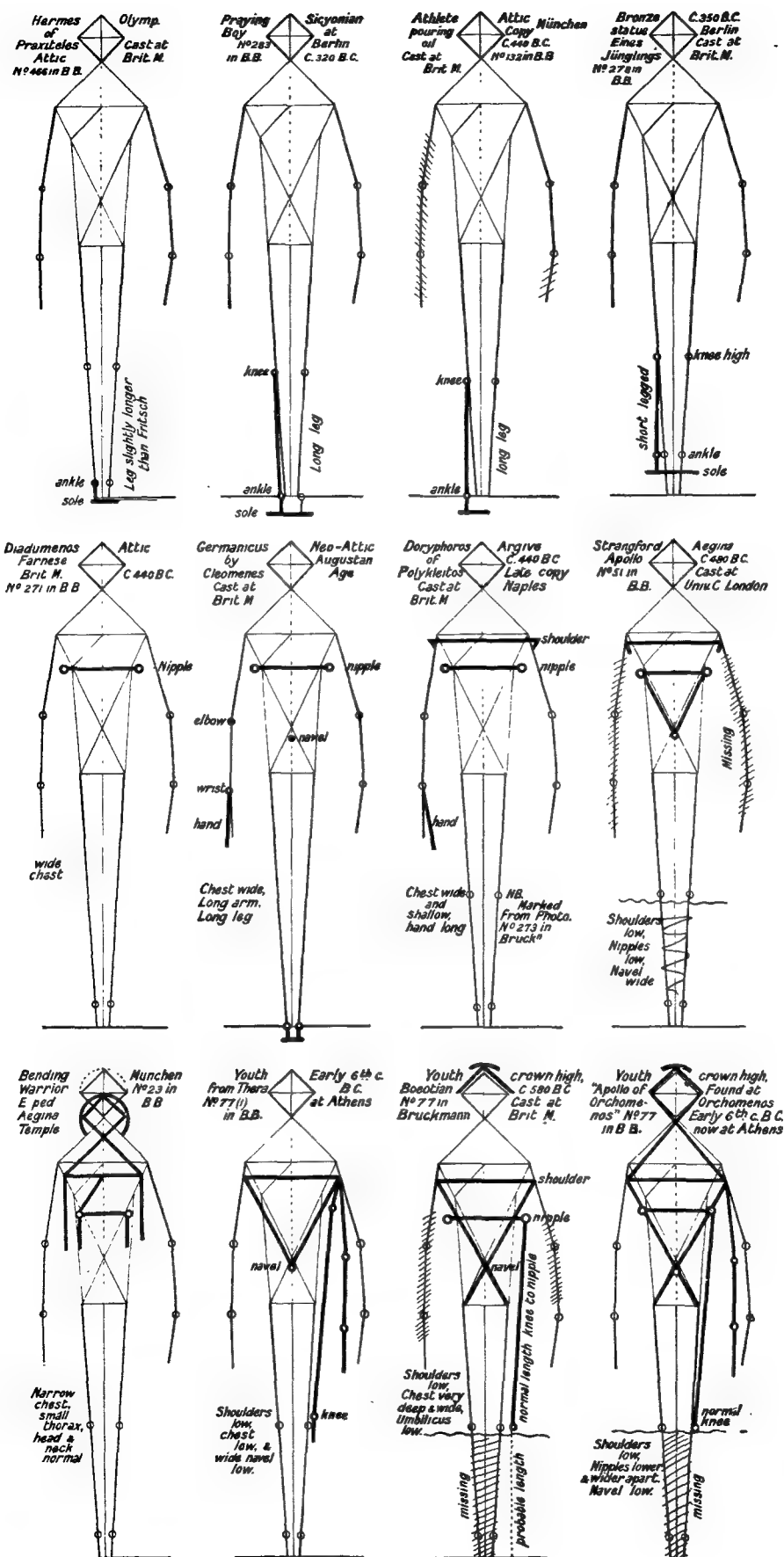


FIG. 11.—COMPARISON OF STATUES BY A FEW CARDINAL POINTS.

Doryphoros I have, I see, named wide and shallow-chested. Now it is true that the shoulders are abnormally wide; and this, especially in the photograph, causes the chest to appear shallow. But my markings from the British Museum cast do not show a *shallower* chest, in actual dimension, than the ordinary. The photograph correctly shows the hand as longer than the normal.

As a slight example of more careful marking I have reproduced a (rough) copy of my scheme showing some other ratios and marked with the true proportions of the pelvis of the skeleton hanging in the dissecting room of the London Hospital in 1914 (Fig. 12). It also indicates some convenient geometric values. Others again are indicated on the complete scheme (Plate VII.), to which alone the reader will please refer.

Let the student now turn to the construction of the scheme of markings on the transverse plane observable in the profile view of the scheme (Plate VII.) and Figs. 12 and 13. This is already partly prepared by the horizontal planes (found for the front view) which are the same for both.

For the pelvis and thorax we proceed thus: two intersecting squares are drawn in the geometric relations shown (by the construction lines on the right of the figure), so that the horizontal diagonal of the lower square is 50 points from ground. One corner of the upper square marks the anterior superior spine of the ilium, and a line drawn from this point to the 80th point in the vertical axis gives the axis of the thorax (which is not the same as the vertical axis of the body). Figs. 13(a) and 13(b) serve only as keys to the scheme (Plate VII.) in regard to anatomical details.

For the thorax, I have made the happy discovery that the geometrical outline for the pelvis can be conveniently drawn as interlaced squares shown in Plate VII., and if (in profile) the axis of the thorax be first made identical with the vertical axis and then inclined about 15° until the lower end coincides with the superior anterior point of these squares, the normal position and shape of the thorax in profile is indicated by symmetrical arcs of circles with centres at the lowest point of the scapula and the nipple respectively, the normal width being fortunately that of the unit of measurement, already seen in the inter-acetabular distance. For the thorax in front view: from the centre ^{37a} (marked with \square) on the fifth rib with radius measured from that point to the fifth cervical vertebra the arc of circle may be drawn which marks the boundary of the wall of ribs.³⁸ (See Fig. 10.)

The horizontal planes are remarkable for position and relations of their distances. At point 90, that is at a distance of one-tenth from the top of the axis (that is from the middle of the great arch of the skull, the centre of which is marked by a \square) the plane of the base of skull ^{38a} contains as

^{37a} Its position is found by the rhomb whose vertical axis is umbilicus-to-suprasternal-notch.

³⁸ See note 36.

^{38a} The line well-known to anatomists as Reid's base line is two points above this plane and parallel with it.

points easily determinable the mastoid process and the nasal spine, which may be taken as marking the atlas or topmost vertebra. At one-tenth lower down the axis, viz., at point 80, is the plane of the acromion (the sharp upper border of shoulder), the suprasternal notch (between ends of collar-bones). At 60-hundredths the plane which contains the navel, the well marked tendinous intersection between two sections of the rectus abdominis, the upper edge of the prominent external oblique muscle, and the crest of the ilium. At 50-hundredths above the ground lies the horizontal plane containing the great trochanter, the lower tip of the backbone, the pubic crest (the upper edge of the pubis bone) and consequently the lower

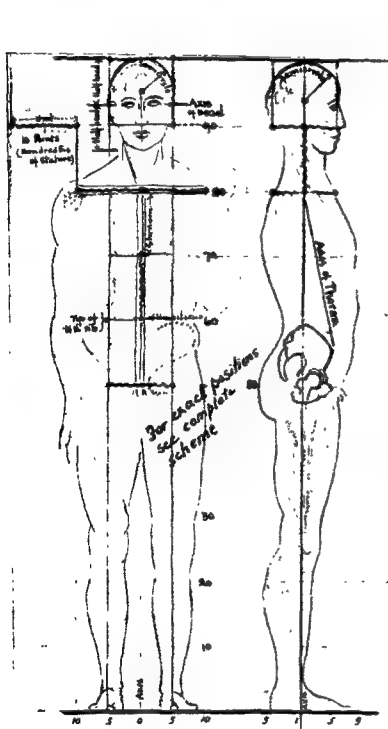


FIG. 12.

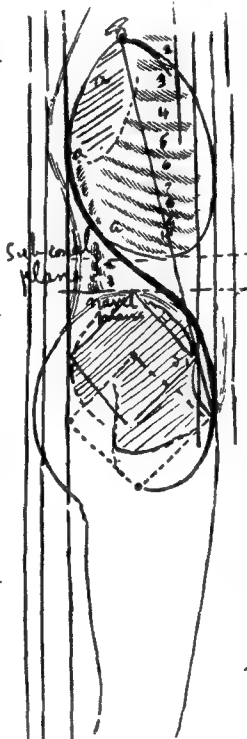


FIG. 13 (a).

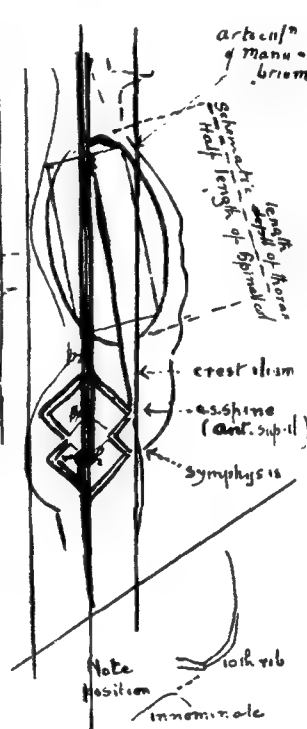


FIG. 13 (l).

extremity of the *rectus* muscle of the abdomen, and the points of maximum convexity of the buttocks.

The vertebral column stands between a plane five-tenths from the ground and a plane at nine-tenths; it is four-tenths in vertical height. It is thus twice as high as the shoulder-joints are apart, and four times as high as the hip-joints are apart. It follows, from these dimensions, that an oblique plane revolving about the front-to-back line of the navel would join the shoulder-joint with the hip-joint (Fig. 14).

Fig. 15 shows in the thicker outline this combination with some other details, and also shows the result of further revolving the hip-and-shoulder

planes aforesaid until they form with the horizontal planes equilateral triangles. This marks the difference between the scheme for the square type of man and that for the rhombic. It is the latter which I have developed in the scheme (Plate VII.). The thin lines show the rhombic arrangement.

The reference which can safely be made, for the *general* proportions of the figure, to the articulations of the skeleton reminds us of the debt we owe to Fritsch's Canon, which is the rule of the articulations. By its aid a sculptor might safely build up an iron framework for the main proportions of his figure: it could not then be disproportionate in the main. By its aid I was able to interest an audience of well-known craftsmen and eminent artists at a meeting of the Art Workers' Guild in a demonstration of the

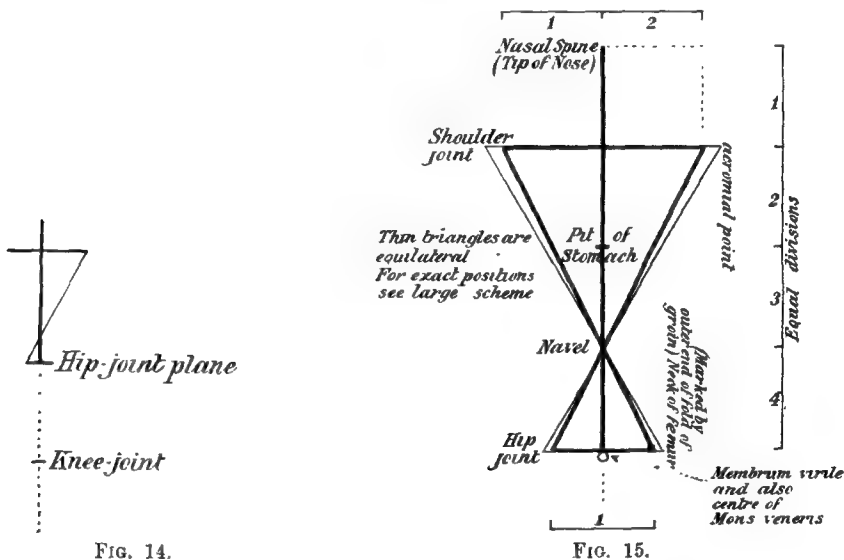


FIG. 14.

FIG. 15.

President's and Professor E. Gardner's principle that the main tectonic of the human figure is geometric in its nature. I have been obliged to abandon the articulations as points on which to base an anthropometric scheme because of the largeness of some of the joints and the consequent lack of precision in the measurement. I spent much time on an attempt to fix points *within* the joint-system itself, but got nothing uniform. The best measuring-point for the shoulder is the acromion process, and that is just outside the joint.

For mnemonic³⁹ and rapid constructive lines the articular system is, however, excellent—and wonderful!

³⁹ For the proportions of the arm and leg Fritsch's most convenient mnemonic says:—

Humerus = Shoulder-joint to nipple,
Ulna = Nipple to navel,
Hand = Navel to hip-joint,
Femur = Hip-joint to nipple on opposite side,

Tibia = Nipple to hip-joint on same side,

Height of foot = Hip joint to pubic symphysis. Except for normal ratios, the difference between his and mine is unimportant, and Fritsch's plan is easily used on my scheme. But when a normal ratio is in question this is not suffi-

The head deserves a separate explanation, which must be reserved for another occasion. The scheme of proportions which I submit in the scheme is shown on the Plate and on Fig. 16. It works easily in with Winckelmann's method, though it is much simpler, and has the advantage of geometrical contour, so that the result can be recorded graphically as well as numerically. The proportions, which he has actually found to hold good as canonical, satisfy my scheme quite closely. For instance, he finds the Polykleitan Canon to be:

$$\begin{array}{ccccc} \text{Eye—Chin} & : & \text{Eye—Nose} & : & \text{Eye—Mouth} \\ 15 & : & 7 & : & 9 \end{array}$$

which is the same as the proportion of the Theseus head on the Parthenon gable. My scheme gives $7 : 3 : 4\frac{1}{2}$; and the 3 is measured from the bony



FIG. 16.—PROPORTIONS OF HEAD (FRONT VIEW).

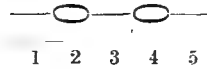
point a little higher than the fold of flesh which the others use. (See Fig. 22, various norms.)

Some interesting diagrams which I had prepared cannot for lack of space be given here. I must content myself with submitting six canons which I have plotted for comparison on my scheme, the last being my own.

ciently accurate. Apart from the weakness of a measurement made from a point so movable as the nipple, there is the much more serious objection that the track of the measurement from shoulder-joint to nipple, thence to navel, and thence to hip-joint is 'over hill and dale,'

among the elevations and depressions of soft parts. I found that so much allowance had to be made that measurement was inconvenient; while points on the same plane were most easily found.

I call the reader's attention to the mnemonic 'spectacles' made by the eyes:



in which in my own scheme the divisions are equal; and also to the relative sizes of eye, mouth, and nose, viz., $2 : 3 : 3\frac{1}{2}$, the ear being the same as the nose (nasion to nasal spine). For the rest, Geometric Man must speak for itself.

Fig. 17 shows the effect of reducing to same scale Mengs' Canon, three Greek Canons suggested by Kalkmann, and mine, and plotting them out as

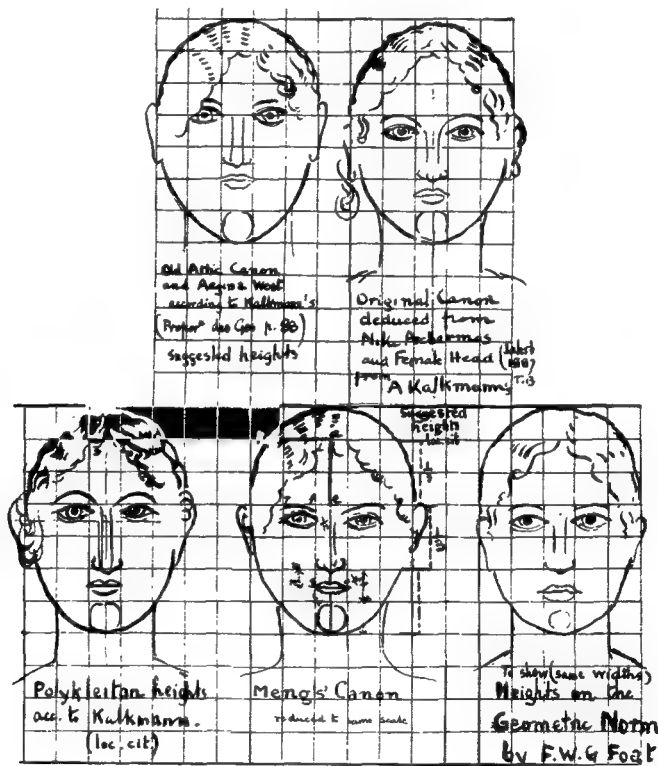


FIG. 17.—COMPARISON OF CANONS. (HEADS.)

in my scheme, in hundredths of the body's height. I give 14 hundredths to the height of head,⁴⁰ and the classical tenth of stature (10 hundredth) to the

⁴⁰ The athlete *à la bandelette*, formerly in the Farnese Palace, classed as of Polykleitos, has a head, says Gebhart, 0.205 m., on total height 1.50 m. ($7\frac{1}{2}$ nearly to the height). Durer's, he adds, is $\frac{1}{100}$ (7.419 heads in the height); and the bas-reliefs of the Parthenon and the

Faun of the Capitol between $7\frac{1}{2}$ and 8 heads. I have therefore presented a large head (7.1 heads only to the height), but there are many classical examples of it. On the other hand, the foot I present (the same length as head) is small.

face—so far as that may with precision be determined by the hair of the forehead.

Although I am obliged to pass over without comment the other details of the head, as indeed most of the details of the body, I am confident that the reader will be repaid by a study of them on the principal scheme (Plate VII.); which, though it cannot make as clear as they deserve relations of muscles, tendons, etc., nevertheless avoids the insertion of anything that is not carefully considered. Nothing has been put in the way of future investigation. The details of the face, for example, are not shown large enough to be safely used for a large scale plan; but at least there is nothing wrongly drawn for the sake of an artificial completeness.

We have now at our disposal in the reference of all points of the body to our coordinate planes a *standard notation* by means of which we may describe every point as to its position in space.

By the construction of a scale for each figure (keeping for convenience to the 100 points as the 'height') we are independent of absolute dimensions, that is dimensions registered in feet and inches or else in metres and millimetres. And by recording each body's dimensions *in its own points*⁴¹ on a common scale we have a direct comparison with other bodies of whatever actual dimensions recorded on that scale. All that the observer has to do is to decide what convenient number of millimetres he will count as a *point* and then reduce all millimetre measurements to points in the scheme. For example, if the parts of a statue or a living body 2,000 millimetres in height seem to the trained eye to be fairly proportional, it will be satisfactory to proceed at once by counting every 20 millimetres as one point, uniformly recording all measurements in terms of points. The shoulders, for example, being found to measure 660 millimetres, will be registered 33 points. And if in another body—a very small statuette, for instance—the single point be taken as 2 millimetres, then the shoulders measuring 66 mm. will be again registered as 33 points on the common scale, and so be seen to be in that case proportionally the same.⁴²

But, it may be asked, what is the result if the point be unwisely calculated on an apparent harmony of the parts; if, for example, an extremely

⁴¹ This, it will be remembered, would satisfy Leonardo da Vinci's demand for harmonic proportions, complete for each individual, sympathetically expounded in *Storia delle Arti*.

⁴² If all observers will make the records on a geometric figure of the same absolute height in millimetres, the work of subsequent collation will proceed, in ethnological anthropometry and in art criticism, with greater comfort and rapidity. I think the quarter-metre or 250 millimetres (crown to sole) might be found

convenient. All my own records are made on a figure 252 mm. high, that being the nearest to a round number in inches (*viz.* 10 inches). The figures in Plate VII. and elsewhere in this article have had to be reduced for convenience of printing, but all the original records were made on one scale. The diameter of the hexagon on the tip-to-tip measure is on that scale $\frac{1}{3}$ of a metre, or rather of 999 mm. I suspect that we are all wrong in making 1,000 our round number instead of 999.



narrow-chested body be measured by points calculated from shoulder-width? The answer is that nothing more than a little inconvenience in comparison with other figures will result. The record of the proportions will be quite true, though it will show a figure whose tall head and long legs seem out of due proportion to the chest, instead of one whose narrow chest appears out of due proportion to the long legs and head; and the restoration to the common scale will be correctly effected by a simple reduction. I suggest that we take wherever possible the hint given both by Nature in the proportions of the embryo *in utero* and by Fritsch's Canon, viz., *to regard the vertebral column*⁴³ *as the modulus or norm* of reference. For the completely flexed spine Prof. G. D. Thane remarks⁴⁴ that its overall length is one-seventh greater than that of the erect spine,⁴⁵ and this allowance may have to be made in bending figures. In an heroic statue, for example, of 2,000 millimetres an allowance of $4\frac{1}{8}$ ins. (= 114 mm.) would account for the effect of spreading out the spinous processes in flexion; but only in complete flexion: in the Discobolus for instance it would be too great an allowance. I have found by experiment that the actual *length* of the vertebral column is 1—3 points ($\frac{1}{100}$ to $\frac{3}{100}$ of height) greater than its vertical height. This vertical height is shown on the extreme right of scheme (Plate VII.): it may safely be computed in the front view as lying between the plane of the pubic crest and that of the nasal spine and mastoid process (when the eyes are directed to the horizon).

But, though provision is thus made for exceptionally difficult positions of the vertebrae, there is no need to trouble much with them. The computation of the point can be made from any of the standard dimensions.

The computation of the millimetre value of the point having once been made, the measurements can be made throughout, notwithstanding the position of the limbs or contortion of the body.

Here, of course, the observer's knowledge of anatomy is often severely tested, it may be even that some measurements have to be abandoned for lack of visible data. In a Silenus, for example, many of the anatomical features shown on Plate VII. are obscured by the smooth roundness representing fat.

To commence measuring from the umbilicus is usually a satisfactory procedure. It may, however, in some cases be found to be abnormally

displaced: then it is better to begin with the upright of the  (of which the top bar lies across shoulders). Then the other lines of the  shown on Plate VII. can be marked off, and next the rhombs and triangles and

⁴³ Its height and place on the scheme are shown in Plate VII., right margin.

⁴⁴ If I have correctly recorded my notes of his lectures on anatomy for art students which I took in 1906.

⁴⁵ The difference is due not to the spine's compressibility, which in its columnar portion is very slight indeed, but rather to the longer reach of the spinous processes when spread finger-wise in flexion.

squares connected with them, as convenient, *the anatomical fact being always first observed*.⁴⁶ Bit by bit the whole is recorded on the common scale until as many observations have been made as required.

These remarks are merely illustrative. The measuring is complete and good in proportion to the observer's knowledge and practice.

In experimenting with this scheme, and in testing the accuracy of any of its ratios, allowance must be made for appropriate facts. For example, that the body being here seen without any foreshortening, each point is not on a radius, as it is in the photograph and ordinary drawing, but on a vertical projector of a plane; *e.g.* the outer top of the great trochanter approaches quite closely the muscular line of the hip when considered from a point in the same lateral plane, whereas to the ordinary spectator who sees both hips from the same focus the gluteus medius muscle and the tensor vaginæ femoris make an obstruction, a projecting curve behind which the really subcutaneous surface of the trochanter will seem to be hidden an inch deep. Another fact to be generally allowed for is the optical effect of the absence of foreshortening: some surfaces on a body not drawn in perspective but plotted out, as in all these figures, must necessarily appear unfamiliar to the eye—like a land-surface in Mercator's projection,⁴⁷ only worse, as orthogonal projection is more distorting than spherical or focal.

Any attempt to apply a scheme to the measurement of statuary must be made with the knowledge that much variation in detail is to be expected in all the parts. The immense industry displayed in A. Kalkmann's tables of facial measurements of Greek statues (in the monograph quoted above), and giving four or five thousand millimetre measurements of the chief distances, reveals a diversity which admits considerable extremes. Hardly two of the faces are found to be of the same proportions, and such variation as 88·9 points in extreme width across both eyes in the Apoxyomenos of Lysippus against 100 of the Doryphoros and 104 of the Hermes of Praxiteles (the total height being taken as 2,000 in each) are not at all extreme: the Naples Apollo has 120, and the Sauroktonos Villa Albani has 130·2 on same scale.

As regards the shape and proportions of skull:

the Lysippean head at Turin (*J.H.S.* xxvi. Pl. XVI.),

the Oldfield head of Apollo (*J.H.S.* xxiii. Pl. III.),

the Demetrius Phalereus at Florence (*J.H.S.* xxiv. Pl. IV.),

the 'Narcissus' in possession of Philip Nelson, M.D. (*J.H.S.* xxvi. Pl. I.),

the Westmacott 'Polykleitan' athletic (*J.H.S.* xxxi. Pl. II.),

⁴⁶ With this emphasis I must reluctantly leave the whole of the Topographical Anatomy to a later paper.

⁴⁷ An easy illustration of the amount of difference is obtainable by looking at one's face in a mirror (at a focal distance of 12 inches) so turned that the tragus of one ear is just visible;

if now the eye on the same side be *covered*, the tragus will disappear behind the curve of the cheek. N.B.—In the portions finished in ordinary shading, ordinary perspective has been introduced where possible as a concession to artistic feelings, τὸ μὴ τιθέναι πρόσκομμα τῷ ἀδελφῷ, ἢ σκάνδαλον.

present marked differences in the relations of the parts; differences easily and precisely ascertainable by reference to our scheme.

It is useless to seek for a single universal ideal or a normal or an archetypal example of detailed proportions present in any one statue. What is here offered is a presentable standard scheme or criterion of comparatively easy application for all points of the whole figure. It offers definite, if arbitrary,⁴⁸ means of reference and description, and must in all other respects crave indulgence from the experts.

I add a final word about laboratory and tools. The ideal work-room would be a combination of artist's studio, photographic studio, and physical science laboratory, provided with a good many things usually found in the engineer's office. A living model to take the pose of the statue, adjustable lighting to throw into varying relief the details of the statue, and backgrounds, etc., of graduated scales would add much to the accuracy of the work.

As, however, the measuring has usually to be done wherever the statue happens to be standing, and one is often working on a pair of ordinary steps which have to serve as platform and desk, the best thing to do is to make sure that the main conditions are secured. The first of these is a reasonably regular treatment of the observations. Genuinely orthogonal projections may be secured, within a little, by means of some distant object behind the statue, and the eye may be guided by chalk lines on wall and floor; for practical purposes I find that the lines marked by floorboards and window frames give sufficient guidance to the eye.

Messrs. Stanley & Co. would be willing to make up an adapted form of sliding or beam compasses (in which a pair of travelling perpendiculars take the place of the usual 'heads'), which I have suggested for perfectly accurate observations. A spirit level, a plumb-line, a T-square, and various surveyors' instruments are also serviceable. Almost immediately necessary is the construction of computing scales and *proportional* calipers. Makers to whom I have explained their construction are willing to make them to order. A complete apparatus for perfect record-making would be quite elaborate, and a specially designed studio would have very great advantages. But then! The good and careful worker will do better work with simple apparatus than a less careful worker with elaborate instruments. I can only say that good tools do make the task easier.

The Committee on Anthropometric Method of the British Association

⁴⁸ The arbitrariness is, however, only in the final selection of a set of positions from among innumerable alternatives presented by the actual practice of artists and surgeons, textbooks and art-schools, systems and theories, ancient and modern. I can only say that I have not neglected any suggestion made during five years' demonstration of the scheme by book

or by friend, and I have had the counsel and help of some of the most eminent in all the faculties. If the scheme (Plate VII.) should seem comparatively simple, it is a simplicity reached after many modifications and much 'trying back,' to which dozens of trial schemes of mine bear ample witness.

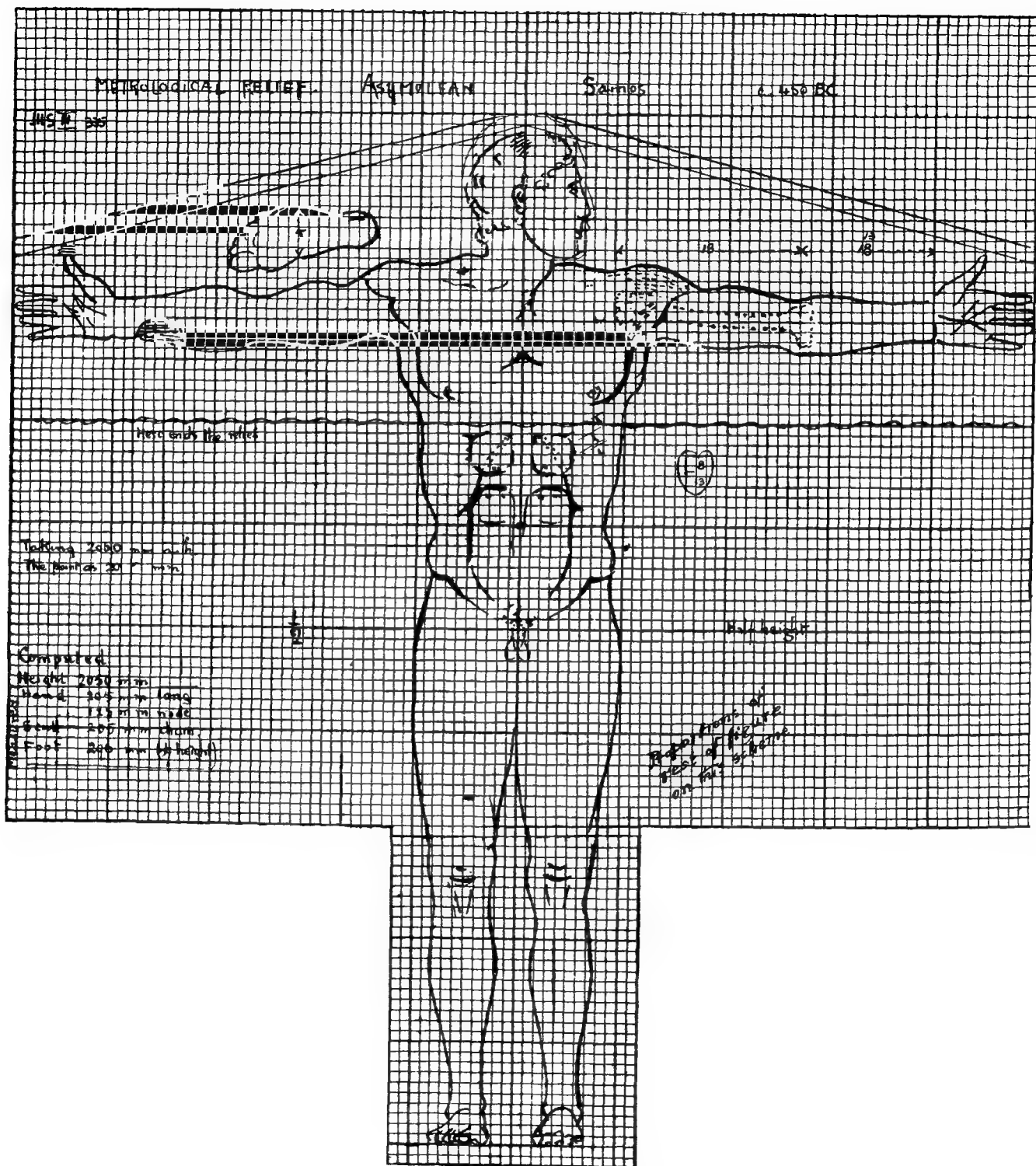


FIG. 18.—METROLOGICAL RELIEF WITH RESTORATION ACCORDING TO SCHEM.

[To face p. 255.

for anything between twenty and forty), while the Doryphoros was a stronger treatment of a youthful figure. Yet these two are *paene ad unum exemplum*. To the Vaison copy, however, this last remark will not apply, the exemplum being of another build.

In the next group (Plate VIII.) come an archaic statue, and the Piombino, which is reminiscent of its proportions, and the Cassel Apollo (Terme). These three show how evolution of type is recorded by the scheme.

In the next group (Plate IX.), a youthful Athena judged by Professor Percy Gardner to be Myronic, is compared with the 'Esquiline Venus.' So far as the clinging drapery permits one to judge, the Athena is of anatomical proportions not dissimilar to the others. Neither is a distinctively female figure: the breast of the Esquiline is of the same 'make' as a male breast, a little fuller.

The Athlete by R. Tait McKenzie (see Plate IX.), an American sculptor, was composed on the average proportions of 400 Harvard students, athletes and others. It was intended by the sculptor to be a norm or canon; I have plotted it out to show its proportions on the scale of the scheme.

I add four illustrations of the recording of proportions of living models in the same scheme. They are (1) a young Englishman of twenty, since made lieutenant in a Yorkshire regiment; (2) a young English woman of nineteen, virgin; (3) and (4) an English boy of seven and another of five, both in sound health and of normal development. Marked only where not accordant with my scheme. Nos 1, 2, and 3 are on Plate IX.; No. 4 is Fig. 19.

BIBLIOGRAPHY.

- Aeby (Prof. of Berne). Articles: (1) 'Der Bau des menschlichen Körpers,' and (2) 'Die Altersverschiedenheiten der menschlichen Wirbelsäule,' both articles in *Archiv für Anatomie u. Entwicklungsgeschichte*.
- Anderson, W. (translator of Brücke). Brücke's *The Human Figure*. London, 1891.
- Audran, G. A work on proportions in 'heads, parts, and minutes.' *Les proportions du corps humain*. 1683 fol.; English trans. 1790, in Brit. Mus. print room.
- Aristotle. *Poet.* i. 447, iv. 1448 and 60, xxv. 1461, ii. 1448, ix. 1451. *Metaph.* xiii. 3, 1078; *Politic.* iii. 11. 1281. On the artist as *μυρτής* and with reference to *μετρίότης* and *συμμετρία*.
- Arphe y Villaphañe. *De Varia Commensuratione*. 1585.
- Baxter, J. *Statistics medical, etc. of Provost Marshal General's Bureau*, i. 62. 1875. An outline of the history of anthropometry.
- Bergmüller, G. *Anthropometria*. 1723.
- Blanc, C. *Grammaire des Arts du dessin* (Canon, pp. 37 ff. Middle finger as unit, nineteen divisions of the body). 2nd ed. 1870.
- Biometrika*. Cambridge, 1901, etc. Especially ii. pp. 1-23, 345-47, and 349-56.
- Bossi, Gius. (1) *Storia delle Arti*. (2) *Del Cenacolo di Leonardo da Vinci*; a chapter in Book IV. deals with 'Opinioni di Leonardo intorno alle proporzioni d. corpo umano.' 1810. The *Opinioni* separately in 1811. With plates. For an account of Leonardo da Vinci's search for the Canon.

- Bonomi, Joseph. *The proportions of the Human Figure, with . . . instrument for the identification, etc.* London, 1880. (With Scheme, and Bibliography, B.C. 53 to A.D. 1879.) Excellent drawing. Important work.
- Brücke, Ernst. *Schönheit u. Fehler der mensch. Gestalt.* 1891; Eng. trans.: *The Human Figure.* 1900.
- Bulle, H. *Der schöne Mensch.* With Plates. 1899.
- Camper, translated by Cogan, T. *On the connexion between the Science of Anatomy and the Arts of Drawing.* 1794. Camper was the discoverer of the facial angle and the ellipses for shoulders and pelvis.
- Carus, C. *Die proportionslehre der mensch. Gestalt,* fol. Leipzig, 1854.
- Cesariano's edition of Vitruvius. Como, 1521.
- Choulant, J. L. *Geschichte u. Bibliogr. der anatom. Abbildungen.* 1852.
- Colenso, R. J. (1) *Living Anatomy.* 1900.
(2) *Landmarks in Artistic Economy.* London, 1902.
- Conway, W. M. *Literary remains of Albrecht Dürer.* Camb. Univ. Press, 1889. Indispensable for Dürer.
- Conze. Article 'On the Eye in Ancient Sculpture' in the *Sitzungsber. d. k. Akad. d. Wiss. Berlin* (1892) vii.
- Craig, J. J. *Anthropometry of Modern Egyptians.* 1911.
- Cunningham, D. J. 'On the Lumbar Curve.' *Cunningham Memoirs*, Vol. 2.
- Cunningham, D. J. *Text-book of Anatomy.* 4th ed. 1913. See Stiles, *infra*.
- Dictionnaire Encyclopéd. des Sciences Méd. Article s.v. *Anthropologia.* Paris, 1866, etc. An outline of history of Anthropometry down to 1866.
- Dürer, A. (see also Conway, *supra*.) (1) *Della simmetria dei corpi humani.* Especially his portfolios. Venice, 1591. 'Poca et debole cosa questo libro.'—M. Angelo. (2) *Les quatre livres.* 1613. Also (3) an introductory treatise, *The Teaching of Measurement by Rule and Compass: Underweyssung der messung mit dem zirkel u. richtscheyt.* 1525.
- Duval, M. *Grundriss der Anatomie für Künstler.* 1891.
- Duval, M. *Artistic Anatomy.* 1905.
- Duchenne. 'Sur l'ensellure lombo-sacrée des femmes de Boulogne,' in *Bulletin de la Soc. d'Anthrop. de Paris.* 1867.
- Fau, J. *The Anatomy of the External Forms of Man.* London, 1879.
- Fawcett, Cicely D., and Lee, Alice. 'Variation and Correlation of the Human Skull,' in *Biometrika*, vol. i. pp. 408-467. Five years' work in measuring 500 skulls.
- Fritsch, Gustav, with Harlen and C. Schmidt. *Die Gestalt des Menschen.* Stuttgart, 1899.
- Froiep. *Charakteristik des Kopfes.* Berlin, 1845.
- Gardner, E. A. *Six Greek Sculptors.* Especially the Introduction. Latest edition, London, 1915.
- Gebhart, E. Article 'Canon' in Darembert and Saglio's *Dictionnaire des Antiquités Grecques et Rom.* Paris, 1892.
- Gerrish, F. H. 'Relational Anatomy,' being the penultimate section of his *Text-book of Anatomy.* 1899.
- Gray, Hy. 'Surface Anatomy and Surface Markings,' being last section of his *Anatomy.* 18th ed. 1913.
- Hagen, B. *Anthropologischer Atlas.* 1898.
- Harless, E. *Lehrbuch der plastischen Anatomie.* 1856. 3 vols.
- Hart, D. B. *Atlas of Female Pelvic Anatomy.* Edinburgh, 1884.
- Hay, D. R. *Geometric Beauty of the Human Figure; a system of aesthetic proportions.* Edinburgh, 1851.
- Hay, D. R. *Proportions of the Human Head.* Blackwood's. Edinburgh, 1846-49.
- Humphry, G. M. 'The proportions of the Human Figure' in his *Treatise on the Human Skeleton.* 1858. Gives tables based on Carus.
- Hooper. Article in *Med. Dict.* 'Anthropometry.' 1839.

- Jacobson, W. H. H. *See* Morris.
- Koch, M. 100 *Modellstudien*. Leipzig, 1897.
- Koch and Rieth. *Der Akt*. 4to. Berlin, 1895.
- Kollmann, Julius. *Plast. Anatomie*. 1886.
- Kalkmann, A. *Die Proportionen des Gesichts in der griech. Kunst*. 893. G. Reimer, Berlin.
- Lee, Lewenz and K. Pearson. Article in *Roy. Soc. Proc.* vol. 71, pp. 106 *sqq.*
- Liharzik of Vienna. *The Law of the Growth and the Structure of Man*. Based on 6,000 models. *Das Gesetz . . . Bau des Menschen, die Proportionslehre*, etc. Vienna 1862.
- Lucian. *De saltat.* 75.
- Lanzi, L. A. *Notizie d. Scult. Antichi*, p. 52. 1824.
- Lange, Julius. *Darstellung des Menschen*. 1899.
- Leonardo da Vinci. (1) *The Literary Works of Leon. da V.* by J. P. Richter. Vol. I. 1883.
- (2) *Quaderni d'Anatomia*. Pub. Dybwad, Christiania, 1914. The original is in the Royal Library at Windsor.
- (3) *Simmetria d. Corpi umani*. *See* Bossi.
- Loewy, Emanuel. *Die Naturwiedergabe in der älteren griech. Kunst*. 1900. Trs. Fothergill. 1907.
- Man*. The Journal of the Anthropological Institute. 1901-1905.
- Marshall, John. (1) *Anatomy for Artists*. 1878.
- (2) *Description of the Human Body*, with plates. 1875.
- (3) *Life-sized diagrams of the Human Body*. 1875.
- (4) *A rule of proportion for the Human Figure*. 1879.
- Mégret, Adolphe. *Étude sur les Canons de Polyclète*. *See* *Anthropologie normale*. 1895.
- Mengs, A. Raphael. *Opere*. Parma, 1780. In Eng. trs. 1796. In German *Mengs' . . . Schriften*. Bonn, 1843. Esp. cap. xii. and the *Anmerkung*.
- Michaelis, A. *Ancient Marbles in Great Britain*. 1882.
- Michaelis, A. Article: 'The Metrological Relief at Oxford' in *Journ. Hell. St.* iv. 335.
- Morris, H. (and Jacobson, W. H. A.). *Human Anatomy*. Especially Sect. xiii. 'Topographical Anatomy,' by W. H. A. Jacobson. 1907. 4th ed.
- Moody, F. W. *Lectures and lessons in Art*. 1873.
- Montabert, Paillet de. *Traité de la Peinture*, 1829, and article in *Dict. . . des Beaux-Arts*.
- Murray, A. S. *History of Greek Sculpture*. 1883.
- Naegelé. *Das weibliche Becken*. Carlsruhe, 1825.
- Paterson, A. M. *The Human Sternum*. London, 1904.
- Pearson, Karl. *Math. Contrib. to the theory of evaluation*. Article in *Philos. Trans^{ns}* vol. 187 A, pp. 253 *sqq.* Use of terms variation, correlation, etc.
- Perrot and Chipiez. *Histoire de l'Art*. (Canon, i. 767 ff.)
- Plato. *Rep.* x. 595; *Legg.* ii. 667, 653; *Phileb.* 64; *Tim.* 87; *Polit.* 284; *Soph.* 228. On the general principles of symmetry. No *ἀναλογία*.
- Pliny. xxxiv. and xxxv.
- Quain, J. *Anatomy*, especially vol. iv. pt. i. on 'Arthrology.' 11th edition. London.
- Quételet, L. A. J. *Anthropométrie*. 1870.
- Rawling, L. B. *Landmarks and Surface-markings of the Human Body*. London, 1912.
- Roberts, C. *Manual of Anthropometry*, with Bibliogr. to A.D. 1878.
- Roth, Ch. *Plastisch-Anatomischer Atlas*. Ebner, Stuttgart, 1886. 2nd ed.
- Rochet, R. *The Prototype of Man (Laws of Human Proportion)*. 1889.
- Sánchez y Sánchez, D. *Consideraciones críticas . . . Anthropometria*. A summary (in Spanish) of the state of the study, especially in reference to the *Congrès International d'Anthropologie*, which had formulated an *International Agreement* at Geneva in September, 1912. Pub. in his *Memorias*, tom. 7. 1913.

- Schadow, J. G. (1) *Polyclet oder von den Maassen des Menschen*. Berlin, pub. 1834. London, 1886. *Very many measurements of models and statues.*
 (2) Article 'Canon' in *Dict. de l'Académie des Beaux-Arts*. Paris, 1867.
 (3) *The Sculptor's . . . Guide to the Proportions*. 1883.
- Stiles, H. G. 'Surface and surgical anatomy,' being the last section of Cunningham's *Text-book of Anatomy*.
- Story, W. W. *The Proportions of the Human Figure*. London, 1864. Gives a very full list of all who have previously worked on the proportions in ancient and modern times.
- Stratz, C. H. (1) *De Vrouwen op Java*. 1897.
 (2) *Die Körperformen . . . der Japaner*. 1902.
 (3) *Die Rassenschönheit des Weibes*. 1901.
- Taylor, E. H. *Treatise on Applied Anatomy*. 1904.
- Thane, G. D. Appendix (to his Edition of Quain's *Anatomy*): 'Superficial Anatomy.'
- Thomson, A. *Anatomy for Art Students*. 1896. Oxf. Clar. Pr. Ash. G. I.
- Topinard, Paul. *Éléments d'Anthropologie*. Three concluding chapters on *Anthropometry* to 1885.
- Ulrichs, L. *Griech. Kunstschrift*.
- Valentin, V. *Die hohe Frau von Milo*. 1872.
- da Vinci. (See Leonardo.)
- Vitruvius. iii. 1, p. 65; iv. 3, 91. 1st cent. B.C.
- Walker, A. *Beauty in Woman*, chaps. xvii. and xviii. 5th ed. Lond. 1892. A readable summary of pros and cons in regard to proportion.
- Winckelmann. *Geschichte der Kunst des Alterthums*, especially chapter on 'Von d. K. unter den Griechen.' Dresden, 1764.
- Windle, B. C. A. *The Proportions of the Human Body*. London, 1889. Tabulated list of Authors.

For others see the above-mentioned Bibliographies of Bonomi, Roberts, and Story.

F. W. G. FOAT.

THE PROGRESS OF GREEK EPIGRAPHY, 1914-15.

THE following summary is intended to cover the period from July, 1914, to June, 1915, inclusive. That it is at all complete I hardly dare to hope: the circumstances of the year have rendered the task of compilation peculiarly difficult, and I can but claim to have done my best to render the account as full and as accurate as I could with the materials accessible to me.

General.—Of the great collections of inscriptions the only one which has made progress during the period under review is, so far as my knowledge goes, the *Inscriptiones Graecae ad res Romanas pertinentes*, to which has been added a fresh fascicule¹ containing 313 texts, some of which come from the islands off the S.W. coast of Asia Minor (Cos, Nisyrus, Syme, Chalce, Rhodes, Carpathus), while the greater number belong to Lydia.

In connexion with the origin of the Greek script, A. Cuny's discussion of the linear writing of Crete,² based upon Sundwall's *Über die vorgriechische lineare Schrift auf Kreta*, should be noted, as well as estimates by W. Erbt³ and W. Schultz⁴ of Stucken's theory of the origin of the alphabet referred to in my last Bibliography (*J.H.S.* xxxiv. 322). A brief but serviceable account of early writing—Egyptian, Assyrian, Hittite, Cyprian, Cretan, Anatolian, Phoenician, and Greek—will be found in an appendix to P. Kabbadias' work on prehistoric archaeology.⁵

C. Favre has rendered a signal service to Greek lexicography, and especially to the study of the Ionic dialect, by his *Thesaurus*,⁶ a complete vocabulary of Ionic inscriptions with special reference to Herodotean usage: words marked with an asterisk are common to inscriptions and Herodotus, those with a dagger are found only in inscriptions or in these and the later lexicographers and grammarians, while those not distinguished by either sign are common to inscriptions and literature, but do not occur in Herodotus. The work, which is of great value for its full citation of examples and its careful study of the original and derivative meanings of words, is rendered still more useful by the series of appendices (pp. 427 ff.), in which are collected the words found only in inscriptions, those bearing a new meaning

¹ Tom. iv. fasc. v. Paris (Leroux): 3 fr.

² *Rev. Ét. Anc.* xvi. 393 ff.

³ *Or. Lit.* xvii. 203 ff.

⁴ *Ib.* 210 ff.

⁵ *Προϊστορικὴ Ἀρχαιολογία*, Athens (Leones),

pp. 812 ff.

⁶ *Thesaurus verborum quae in titulis Ionicis leguntur cum Herodoteo sermone comparatus*, Heidelberg (Winter): 14 M.

in inscriptions, those found only in inscriptions, grammarians, and lexicographers, and so on. F. Slotty's study of the use of the conjunctive and optative moods in the Greek dialects is unknown to me.⁷ Other articles based largely or wholly on epigraphical material comprise J. Bertels' examination of the pentameter as used in Greek epigrams preserved in inscriptions,⁸ F. Eichler's discussion of the use in early Greek epitaphs of the terms *σῆμα* and *μνήμα*,⁹ P. Perdrizet's study of Nemesis,¹⁰ in which a stele from Salonica and a terra-cotta medallion now in the British Museum are carefully examined, A. Reinach's article on the epigraphical evidence dealing with the painting of reliefs in antiquity,¹¹ W. K. Prentice's statement and criticism of the various views held regarding the significance of the letters X M Γ frequently found in Christian inscriptions,¹² and P. Perdrizet's collection of the examples in which the wishes ΥΓΙΑ ΖΩΗ ΧΑΡΑ are engraved on bronzes, gems, and inscriptions, all of which are of Syrian origin and late date.¹³ A list, drawn up by S. Reinach, of the accessions made to the Boston Museum in 1913 contains a number of *καλός*-inscriptions and artists' signatures painted on vases.¹⁴

Attica.—Among the Attic inscriptions published for the first time the most interesting are (1) a decree of 288-7 B.C. granting citizenship to one Artemidorus, probably a Smyrnaean, who conducted negotiations between Athens and Lysimachus¹⁵; (2) a new fragment of the decree of Chremonides (Dittenb. *Syll.* 214), containing the conclusion of the Athenian decree arranging for co-operation with Areus of Sparta and the Spartan allies in the struggle with Antigonos Gonatas, and also part of the accompanying treaty of alliance¹⁶; (3) a new fragment of the accounts for the construction of the chryselephantine Athena by Phidias¹⁷; (4) the archon-list of the year 14-13 B.C., one of a group of twelve exactly similar inscriptions, probably set up on the Acropolis¹⁸; (5) a boundary-stone of the Ceramicus, found *in situ*,¹⁹ and (6) two new fragments of the building-record of the Parthenon, published by A. D. Keramopoullos, who assigns them to their proper place in the whole series of accounts, republishes a further fragment of the same stele unknown to Dinsmoor in his reconstruction of the Parthenon accounts (*Am. Journ. Arch.* xvii. 53 ff.), and makes some valuable additions to, and modifications of, Dinsmoor's article.²⁰ The remaining inscriptions, for the most part dedications or epitaphs, do not call for detailed notice here.²¹ The publication in 1913 of the first instalment of *I.G.* ii.² has

⁷ *Der Gebrauch des Konjunktivs u. Optativs in den griech. Dialekten. I. Der Hauptsatz*, Göttingen: 5 M. 60.

⁸ *De pentametro inscriptionum Graecarum quaestiones*, Münster.

⁹ *Ath. Mitt.* xxxix. 138 ff.

¹⁰ *B.C.H.* xxxviii. 89 ff.

¹¹ *Rev. Ép.* ii. 248 ff.

¹² *Class. Phil.* ix. 410 ff.

¹³ *Rev. Ét. Gr.* xxvii. 266 ff.

¹⁴ *Rev. Arch.* xxiv. 146; cf. *Arch. Anz.*

xxix. 495 ff.

¹⁵ *Am. Journ. Arch.* xviii. 165 ff.; see *I.G.* ii.² 663.

¹⁶ *Class. Phil.* ix. 225 ff.

¹⁷ *J.H.S.* xxxiv. 282 ff.

¹⁸ *Ath. Mitt.* xxxix. 130 ff.

¹⁹ *Arch. Anz.* xxix. 91 ff.

²⁰ *Ἀρχ. Ἐφ.* 1914, 197 ff. 272.

²¹ *Ἀρχ. Ἐφ.* 1913, 185, 193 ff. 1914, 143 ff.; *Rh. Mus.* lxix. 744 f.; *Arch. Anz.* xxix. 121 f., 454.

attracted special attention to the Attic decrees of 403–230 B.C. Two of these have been already referred to: on a number of them A. C. Johnson has published notes, mainly historical and chronological, examining also some of the criteria used for dating them,²² and A. Wilhelm has drawn attention to a considerable number of erroneous attributions and reduplications in Kirchner's work.²³ Notes on and restorations of numerous Attic texts are also due to W. Bannier,²⁴ while B. Leonardos²⁵ and T. Sauciuc²⁶ have corrected errors in the published versions of a metrical epitaph and a votive epigram respectively, and P. Kastriotis has shown that *I.G.* iii. 542, in honour of Ariobarzanes II. of Cappadocia, belongs to the Odeum of Pericles, restored by that prince.²⁷

In a series of 'Notes and Queries on Athenian Coinage and Finance,' A. M. Woodward has examined afresh the epigraphical evidence for Attic coinage in the fifth and early fourth centuries B.C., with special reference to the staters of Lampsacus and Cyzicus and those issued by Croesus, the date of the second issue of Attic gold coins, attributed by P. Gardner to 393 B.C., and the reason why Melos, assessed for tribute in 425 B.C., was not forced into the Attic Empire till 416; notes on some of the Attic quota-lists are added, as also a catalogue of the coins other than Attic which appear in the Athenian treasure-records of 400–350 B.C.²⁸ In the course of a long and masterly article on grants of citizenship made by the Athenians, A. Wilhelm comments upon a large number of *πολιτεία*-decrees contained in *I.G.* ii. and ii.², restoring, correcting and explaining the documents in question, uniting sundered fragments of the same texts and drawing general conclusions regarding the procedure followed in such grants.²⁹ A. C. Johnson has returned to the vexed question of the Attic archons of the third century B.C., especially those of the years 294–262, maintaining that the cycle of the Secretaries, disturbed in 292–1, was restored in the following year and remained unbroken later: the writer discusses in passing various questions in the history of this period.³⁰ To K. Maltezos we owe two interesting and valuable articles on chronological problems. In the first³¹ the meaning of the phrase *μετ' εἰκάδας* in the dating of Attic decrees is examined and the conclusion is drawn that it denotes sometimes a direct sometimes a reversed reckoning, while in the second³² the differences between the accounts given by the author, W. S. Ferguson and J. Sundwall of the application of the nineteen-year cycle to the period 338/7–300/299 B.C. are exhibited in tabular form and the evidence for the crucial years is re-examined in order to support the writer's conclusions. S. Wenz's dissertation on Attic soldiers' graves³³ and

²² *Class. Phil.* ix. 417 ff. 455 ff.

²³ *Ath. Mitt.* xxxix. 177 ff.; cf. 257 ff.

²⁴ *Berl. phil. Woch.* xxxiv. 1597 ff.

²⁵ *Apχ.* 'Εφ. 1913, 233.

²⁶ *Ath. Mitt.* xxxix. 236.

²⁷ *Apχ.* 'Εφ. 1914, 143 ff.

²⁸ *J.H.S.* xxxiv. 276 ff.

²⁹ *Ath. Mitt.* xxxix. 257 ff.

³⁰ *Class. Phil.* ix. 248 ff.

³¹ *Apχ.* 'Εφ. 1913, 109 ff. 1914, 185 ff.

³² *Ib.* 1913, 117 ff. 1914, 189 ff.

³³ *Studien zu attischen Kriegergräbern*, Erfurt, (Ohlenroth).

that of W. Sardemann on Eleusinian *traditiones* of the fifth century B.C.³⁴ I have not been able to consult.

Peloponnese.—From the Peloponnese there is but little to record. An interesting inscription of 369 or 368 B.C., discovered at ARGOS by W. Vollgraff, contains fragments of a boundary-delimitation between the territories of certain Arcadian cities, undertaken by the Argives at the request of the Arcadian states which, shortly after the battle of Leuctra, determined to found in common the new capital Megalopolis.³⁵ Corrections and additions have been made to a considerable number of texts from the Asclepieum of EPIDAUROS by Ch. Giamalides, who also publishes five new inscriptions of no special interest.³⁶ ARCADIA is represented by a fresh reading and a full discussion of the famous archaic sentence from Mantinea,³⁷ written independently of, and therefore presumably before, its publication in *I.G.* v. 2. 262, as well as by four epitaphs, one of them metrical, from Aliphera, and notes on published texts from Phigalea and Lycosura:³⁸ the few epigraphical results of the French excavations at Orchomenus still await adequate publication.³⁹ Lastly, P. Hereiotes has examined the use of the curiously formed stone from AEGINA bearing the inscription *μὲ κίνε τόδε* (*I.G.* iv. 176), and has published two brief epitaphs of the same island.⁴⁰

Central and Northern Greece.—Three new proxeny-decrees of MEGARA, dating from about 300 B.C., have been published by R. M. Heath, who shows that the period during which the Megarian board of *στρατηγοί* comprised five members preceded that during which the members numbered six.⁴¹ BOEOTIA is represented by an inscribed bowl with figures in relief⁴² and by F. Bechtel's notes on three names found in Acraephian inscriptions.⁴³ The contribution of DELPHI during the past year has been of considerable interest. F. Courby, after a careful examination of the literary and epigraphical evidence for the position of the omphalos, concludes that a poros-stone inscribed with three letters, going back at least to the seventh century B.C., is probably the original Delphian omphalos.⁴⁴ G. Blum discusses the fragments of a dedication of Attalus already published and the title on the statue of [Lacrat]es, one of the Aetolian generals who commanded against the Gauls in 279 B.C.⁴⁵ Of greater historical value is an Amphictionic decree⁴⁶ passed in 184 or 183 in honour of Nicostratus of Larisa, sent as *ἱερομνήμων* by the Thessalian Confederation, which re-entered the Amphictionic Council after the fall of the Aetolians and the restoration of the Council in its old form: this event, usually dated in 190 B.C., is proved by our inscription to fall in 186. Considerable interest attaches to the unique

³⁴ *Eleusinische Uebergabeurkunden aus dem V. Jahrh.* Marburg.

³⁵ *Μεμνησιν*, xlii. 330 ff.

³⁶ *Ἀρχ.* 'Εφ. 1913, 125 ff.

³⁷ D. Comparetti, *Ann. S.A.A.* i. 1 ff.

³⁸ *Ἀρχ.* 'Εφ. 1914, 134 f.

³⁹ *B.C.H.* xxxviii. 70 ff.; cf. *Arch. Anz.* xxix. 160 f.

⁴⁰ *Ἀρχ.* 'Εφ. 1914, 92 ff.

⁴¹ *B.S.A.* xi. 82 ff.

⁴² *Ἀρχ.* 'Εφ. 1914, 50 ff.

⁴³ *Hermes*, l. 317 f.

⁴⁴ *C.R. Acad. Inscr.* 1914, 257 ff.; cf. *Arch. Anz.* xxix. 162.

⁴⁵ *B.C.H.* xxxviii. 21 ff.

⁴⁶ *Ib.* 25 ff.

and from Eretria an epitaph⁷⁵ and five fragments of an archaic law, apparently judicial in character, together with a fragment of somewhat later date written from left to right and not, as the earlier fragments, *boustrophedon*.⁷⁶ A. Wilhelm has discussed⁷⁷ a name, *Δυράπωστος*, which occurs in an Eretrian citizen-roll, and has restored a phrase of the Cnidian *ὄρκιον πρὸς Ῥωμαίους* discovered at Chalcis.⁷⁸ In their account of the excavations carried on in THASOS in 1913, C. Picard and C. Avezou refer to a number of epigraphical finds⁷⁹ and illustrate a relief on a painted altar,⁸⁰ while R. Herzog points out that the *Δισολύμπιος Θεογένης*, who figures in a Thasian list of theoi (I.G. xii. 8. 278 C) must be a son of the famous boxer and pancratiast.⁸¹ Among the CYCLADES Delos takes the foremost place, though few new Delian texts have been published during the year under review. M. Lacroix and G. Glotz continue⁸² their comments upon various accounts published in I.G. xi. 2, and A. Wilhelm restores the text of xi. 4. 1208 and thinks that this, together with 1206 and 1207, may belong to a considerable group of bases of statues portraying the legendary rulers of the region of Teuthrania and members of the Pergamene royal house.⁸³ The 'Nouvelles recherches sur la Salle Hypostyle' of R. Vallois and G. Poulsen⁸⁴ rely to some extent on epigraphical evidence, and contain in an appendix four extracts (two of them previously unpublished) relating to the construction of the *στοὰ ἡ πρὸς τῷ Ποσιδεῖω*. M. Lacroix's article⁸⁵ on the architects and contractors who worked at Delos between 314 and 240 B.C. is based entirely upon the materials afforded by I.G. xi. 2, and S. Molinier's work⁸⁶ on the 'sacred houses' at Delos from 314 to 166 B.C., discussing in turn the houses and their tenants, the leases, and the relation of these houses to the property of the god, is also founded exclusively upon published and unpublished inscriptions.⁸⁷ Some corrections have been made by A. Wilhelm in the list of Tenian eponymous archons (*Musée Belge*, xv. 253 ff.),⁸⁸ and an archaic epitaph from Naxos has been published by F. von Hiller,⁸⁹ who has also given us three new texts of THERA,⁹⁰ the most interesting of which is the testament (*ca.* 177-162 B.C.) of Doroclidias, a member of the same family as the famous Epicteta. W. Bannier maintains, against A. Elter, that in the oldest extant inscription of MELOS (I.G. xii. 3. 1075) we must read *γρόφων* as a participle and not *Γρόφων*, a proper name.⁹¹

The Italian excavations at Gortyn in CRETE have laid bare four seventh-

⁷⁵ *Ἀρχ. Ἔφ.* 1914, 192 ff.

⁷⁶ *Ib.* 1913, 210 ff. 214 f.; *Berl. phil. Woch.* xxxiv. 1600; cf. *Arch. Anz.* xxix. 124 (Cyne).

⁷⁷ *Ath. Mitt.* xxxix. 184 f.

⁷⁸ *Berl. phil. Woch.* xxxiv. 894.

⁷⁹ *C.R. Acad. Inscr.* 1914, 276 ff.

⁸⁰ Cf. *Rev. Ép.* ii. 251 f.

⁸¹ *Hermes*, l. 319 f.; cf. *Arch. Anz.* xxix. 165 f.

⁸² *Rev. Ét. Gr.* xxvii. 138 ff.

⁸³ *Ath. Mitt.* xxxix. 148 ff.; cf. 188.

⁸⁴ *Exploration archéologique de Délos.* Fasc. 2 (complément), Paris (Fontemoing).

⁸⁵ *Rev. Philol.* xxxviii. 303 ff.

⁸⁶ *Les 'Maisons Sacrées' de Délos*, Paris (Alcan): 5 fr.

⁸⁷ For Delos see also *Rev. Ét. Anc.* xvi. 389 f.; *Arch. Anz.* xxix. 153 f.

⁸⁸ *Ἀρχ. Ἔφ.* 1914, 87 f.

⁸⁹ *Ib.* 133 f.

⁹⁰ *Ib.* 131 ff.

⁹¹ *Berl. phil. Woch.* xxxiv. 1437 ff.

century acclamations for members of the Imperial family of Constantinople (Heraclius the Great, his daughter Epiphania Eudocia, and his son Constantine), sixteen fragments of a late building-inscription, and an honorary inscription for Aulus Larcius Lepidus Sulpicianus, whose *cursus* is preserved in *C.I.L.* x. 6659.⁹² Of greater interest is J. Hatzidakes' discovery of one large and five small fragments of a treaty between Tyllissus and Cnossus, mediated by Argos about the middle of the fifth century B.C., whether before or after the treaty contained in *B.C.H.* xxxiv. 331 ff., xxxvii. 279 ff. we cannot determine.⁹³ From Genna a batch of eight epitaphs, now in the Museum at Retimo, has been published⁹⁴ by E.N. Petroulakis, who has also given us ten inscriptions from Eleutherna, amongst which the archaic fragments (Nos. 1-4) and the public document (No. 10) deserve more accurate copying and a more careful study.⁹⁵

Turning to the islands of the eastern Aegean, we may first note the useful list,⁹⁶ drawn up by P. Papageorgiou, of the inscriptions of LESBOS published since the appearance of *I.G.* xii. 2 and of the author's *Unedierte Inschriften von Mytilene*. Nine further texts are here published, bringing the total number for the island up to 682, and notes are added⁹⁷ upon numerous texts already known. A. Wilhelm discusses⁹⁸ the restoration of two passages in *I.G.* xii. 2. 16, while O. Viedebanitt subjects to a fresh scrutiny⁹⁹ the building-inscription *I.G.* xii. 2. 10, which, like Lattermann, he considers as relating to the construction of the temple of Messa, near Pyrrha, excavated by R. Koldewey; T. Kehrhaan's article on the Lesbian dialect is not yet accessible to me.¹⁰⁰ An honorary inscription found in the island of Nisyrus was probably brought there from Cnidus,¹⁰¹ but Lerus is represented by an epitaph of the third century after Christ.¹⁰² Attention has already been drawn to the publication of a number of texts belonging to this and the neighbouring islands in the *Inscriptiones Graecae ad res Romanas pertinentes*. From the island of RHODES six new inscriptions have been published;¹⁰³ F. von Hiller adds¹⁰⁴ the names of several priests of Helios to the list drawn up by F. Bleckmann in *Klio* xii. 249 ff., and H. Grégoire comments¹⁰⁵ on two passages of the Lindian Chronicle, which has been re-edited in a convenient form and for a moderate cost, by C. Blinkenberg.¹⁰⁶

Asia Minor.—E. Herbig has examined the linguistic parallels and similarities between the Anatolian and the Etruscan language as a basis for the further study of their affinities,¹⁰⁷ and the present writer has published a

⁹² *Ann. S.A.A.* i. 130 ff., 377 ff.; cf. *Arch. Anz.* xxix. 147 f.

⁹³ 'ApX. 'Eφ. 1914, 94 ff.

⁹⁴ *Ib.* 222 ff.

⁹⁵ *Ib.* 225 ff.

⁹⁶ *Ib.* 1913, 220 ff.

⁹⁷ *Ib.* 225 ff.

⁹⁸ *Ib.* 1914, 84 ff.

⁹⁹ *Hermes*, l. 34 ff.

¹⁰⁰ 'Zum lesbischen Dialekt' in *Zeitschrift f.*

vergl. Sprachforschung, xlv.

¹⁰¹ 'ApX. 'Eφ. 1914, 3.

¹⁰² *Ann. S.A.A.* i. 368.

¹⁰³ *Ib.* 364 ff., 367 f.; 'ApX. 'Eφ. 1914, 130

¹⁰⁴ *Klio*, xiv. 388 f.

¹⁰⁵ *Woch. klass. Phil.* 1913, 1298 ff.

¹⁰⁶ *Die lindische Tempelchronik*, Bonn (Marcus und Weber): 1 M. 50.

¹⁰⁷ 'Kleinasiatisch-etruskische Namengleichungen' in *Stz.b. München*, 1914, 2.

series of brief notes on some misunderstood inscriptions of Asia Minor.¹⁰⁸ A note by A. Wilhelm¹⁰⁹ on the inscription containing a fragment of a history of Pergamum (Dittenb. *O.G.I.* 264) is the sole contribution made during the year to the epigraphy of that city. IONIA is somewhat better represented. T. Stein has examined the morphology of the Prienian inscriptions¹¹⁰ and M. Haslück the cult of Dionysus at Smyrna,¹¹¹ while several texts from the Milesian Delphinium have called forth comment and discussion,¹¹² and Wilhelm has pointed out that the famous document relating to a bakers' strike does not really come, as is usually supposed, from Magnesia.¹¹³ J. Keil and A. von Premerstein have published an account¹¹⁴ of a third journey undertaken by them in LYDIA and the neighbouring portion of Ionia, but this is not yet accessible to me. W. H. Buckler and D. M. Robinson continue their exhaustive publication of the texts discovered at Sardis,¹¹⁵ giving us an inscription of 119 lines, comprising a group of documents relating to the honours paid to a certain Menogenes. At the head stands the title *Τὸ κοινὸν τῶν ἐπὶ τῆς Ἀσίας Ἑλλήνων καὶ ὁ δῆμος ὁ Σαρδιανῶν καὶ ἡ γερουσία ἐτίμησαν Μηνογένην Ἰσιδώρου τοῦ Μηνογένους τοῖς ὑπογεγραμμένοις*, and the ten documents which follow include three decrees of Sardis, two of the Sardian *γερουσία*, two of *οἱ ἐπὶ τῆς Ἀσίας Ἕλληνες*, two letters addressed to Sardis by the president of the Asiatic *κοινόν* and a letter of Augustus thanking the Sardians for the embassy sent by them on the occasion of the coming of age of C. Caesar. The Lydian term *καύεις*, denoting a Sardian priestess, continues to give rise to discussion and conjecture.¹¹⁶ W. H. Buckler argues that the *θεὰ Ἰουλία* referred to in inscriptions of Aphrodisias (*C.I.G.* 2815) and Lampsacus (3642) must be Livia and not Julia Domna.¹¹⁷ S. Reinach has published two further notes¹¹⁸ on the epitaph of Abercius, bishop of Hierapolis in PHRYGIA, W. M. Ramsay has given us four unpublished epitaphs from PISIDIA, now in Constantinople, one of them commemorating a standard-bearer and another a mercenary soldier,¹¹⁹ while for LYCIA we should note a further discussion of the 'thirteen gods'¹²⁰ and an explanation of the curious epithet *αὐξάνιος* found in a Lycian grave-inscription.¹²¹ Far more important, however, is the collection of 177 inscriptions from southern Asia Minor, notably PAMPHYLIA, published by R. Paribeni and P. Romanelli,¹²² mostly for the first time though partly in corrected versions. Of these the most interesting are a bilingual honorary inscription of Adalia recording a *cursus honorum* (No. 5), decrees of Perge

¹⁰⁸ *Class. Rev.* xxix. 1 ff.

¹⁰⁹ *Ath. Mitt.* xxxix. 156 ff.

¹¹⁰ *Glotta*, vi. 97 ff.

¹¹¹ *B.S.A.* xix. 89 ff.

¹¹² *Ath. Mitt.* xxxix. 186 ff.; *Hermes*, l. 154 ff., 318 f.

¹¹³ *Ath. Mitt.* xxxix. 184.

¹¹⁴ *Bericht über eine dritte Reise in Lydien u. den angrenzenden Gebieten Ioniens*, Vienna (Holder).

¹¹⁵ *Am. Journ. Arch.* xviii. 321 ff.

¹¹⁶ *Rev. Ét. Anc.* xvi. 438 ff.; *Rev. Ép.* ii. 316 ff.

¹¹⁷ *Rev. Phil.* xxxviii. 211 ff.

¹¹⁸ *C.R. Acad. Inscr.* 1914, 462 f.; *Rev. Arch.* xxiv. 338.

¹¹⁹ *Class. Rev.* xxviii. 196 f.

¹²⁰ *Rev. Ép.* ii. 316 ff.

¹²¹ *Class. Rev.* xxviii. 197 f.

¹²² *Mon. Ant.* xxiii. 1 ff.

and Seleucia in honour of a doctor who, besides other services, delivered a course of medical lectures in the gymnasium at Perge (48), a decree of Aspendus granting citizenship and *εὐεργεσία* to the 'Pamphylians, Lycians, Cretans, Greeks, and Pisidians' who had rendered services to the state and to Ptolemy, valuable for the light it throws on the constitution of Aspendus and as bearing out the statements of Theocritus (xvii. 88), the *marmor Adulitanum* (C.I.G. 5127) and Polybius (v. 34, 6) that the Ptolemaic rule extended at some time to Pamphylia (83), a *loc. sepulchri* of a *collegium funeraticium* (113) and an inscription in honour of a citizen of Iotape and his wife (124).¹²³ A. Brinkmann has suggested a more satisfactory restoration in the famous inscription of King Antiochus I. of Commagene on the Nemrud Dagħ (Dittenb. *O.G.I.* 383)¹²⁴.

Lastly, three new inscriptions from CYPRUS have been published by E. Sittig—a bilingual (in Greek and an unknown language expressed in the Cyprian syllabic script) of the second half of the fourth century B.C., set up by Amathus in honour of a certain Ariston,¹²⁵ a third-century dedication to *Ζεὺς ὁρομπάτας* (= *ὁρειβάτης*) from the same place,¹²⁶ and a fragment from Lapethus, of 50-100 A.D., referring to the 'martyr Thekla.'¹²⁷ J. L. Myres' catalogue of the Cesnola Collection in the Metropolitan Museum at New York¹²⁸ contains a series of epigraphical appendices, one of which (pp. 525 ff.) comprises ninety-nine texts inscribed in Cyprian characters alone and two in Greek and Cyprian characters side by side, while another (pp. 547 ff.) includes seventy-four Greek inscriptions upon stone and sixteen upon earthenware, a gem, and a leaden amphora.

Outlying Regions.—At Merida in SPAIN an inscribed gold ring has come to light, and the excavations at Ampurias (Emporia) have produced two *graffiti* and two stamped amphora-handles.¹²⁹ Greek epitaphs have been discovered in FRANCE at Marseilles¹³⁰ and Toulon,¹³¹ and an inscription on the base of an imperial statue has been unearthed at Narbonne.¹³² In ITALY a few epitaphs have been found at Rome,¹³³ and various minor discoveries (stamped amphora-handles, *graffiti*, etc.) have been made at Pompeii.¹³⁴ F. Bücheler's discussion of the Pompeian wall-inscriptions has been reprinted in his *Kleine Schriften*:¹³⁵ to G. de Sanctis we owe some additional comments on the inscription of the Artemisii at Naples,¹³⁶ while at Cumae the excavations of E. Gabrici have brought to light a considerable

¹²³ In No. 113 I would read *ὁμολογον* (l. 6) instead of *ὁλ<ο>λογον*: in No. 148 the editors are wrong, I think, in altering *κορακώσουσιν* to *<χα>ρακώσουσιν*.

¹²⁴ *Rh. Mus.* lxi. 585 f.

¹²⁵ 'Αρχ. 'Εφ. 1914, 1 f.

¹²⁶ *Hermes*, l. 158 f.

¹²⁷ 'Αρχ. 'Εφ. 1914, 2 f.

¹²⁸ *Handbook of the Cesnola Collection of Antiquities from Cyprus*, New York (Metropolitan Museum of Art).

¹²⁹ *Arch. Anz.* xxix. 364, 387.

¹³⁰ *Rev. Ét. Anc.* xvi. 407; *C.R. Acad. Inscr.* 1914, 461.

¹³¹ *Rev. Ét. Anc.* xvi. 408 f.

¹³² *C.R. Acad. Inscr.* 1914, 223 ff.; *Rev. Arch.* xxiv. 370.

¹³³ *Notizie*, 1914, 377, 393, 396, 398; *Bull. Comm. Arch.* xlii. 206.

¹³⁴ *Notizie*, 1914, 110 f. 157 f. 200.

¹³⁵ *Kleine Schriften* i. Leipzig (Teubner): 24 M.; pp. 82 ff.

¹³⁶ *Rev. Ép.* ii. 306 ff.

number of inscribed vases and given rise to a discussion, accompanied by admirable photographic reproductions, of texts previously known.¹³⁷ The *πρᾶσις ἐπὶ λύσει* engraved on a silver plate recently discovered at Aidone in SICILY, perhaps the ancient Herbita, has been made the subject of a detailed examination by D. Comparetti.¹³⁸ The Greek inscriptions of TUNISIA are not of special importance,¹³⁹ nor have any fresh discoveries been made at CYRENE,¹⁴⁰ while those from Egypt may be passed over here as they are summarised by the present writer in the Bibliography published every April in the *Journal of Egyptian Archaeology*. The inscriptions found in SYRIA and Palestine, for the most part epitaphs, include a memorial inscription at Sala,¹⁴¹ and texts on mosaics at Jerusalem¹⁴² and near Medaba¹⁴³ and on a tomb-chamber at Beit Jibrin, midway between Jerusalem and Gaza, commemorating members of the Sidonian colony known to us from the neighbouring tomb of Marisha.¹⁴⁴ The survey of the wilderness of Zin undertaken by C. L. Woolley and T. E. Lawrence for the Palestine Exploration Fund resulted in the discovery of twelve inscriptions already known and thirty-five hitherto unpublished from Beersheba, Elusa, Rehoboth, and Eboda, of which those bearing a date belong with one exception to the fifth or the sixth century after Christ.¹⁴⁵ The section of the report of the Princeton University Expeditions to Syria which deals with the Djebel Ḥalaḡah includes fifty epigraphical texts, twelve of them previously published; most of these also date from the fifth or sixth century, though four (Nos. 1106, 1111, 1129, 1152) go back to the second century, and one (1144) bears the date 73/4 A.D.¹⁴⁶ Notes on inscriptions from Palestine and the land to the east of Jordan are contributed by J. Offord¹⁴⁷ and R. E. Brünnow.¹⁴⁸ From southern RUSSIA there is nothing which calls for special attention,¹⁴⁹ but in the course of a discussion of the names Didas and Dizazelmis, the latter of which belongs to THRACE, P. Perdrizet publishes¹⁵⁰ a grave-stele from Pravista, S.E. of Mount Pangaeus, which contains the name, and three Greek votives have been discovered at Augusta Traiana (Stara Zagora) in BULGARIA.¹⁵¹

MARCUS N. TOD.

¹³⁷ *Mon. Ant.* xxii. 449 ff.

¹³⁸ *Ann. S.A.A.* i. 113 ff.

¹³⁹ *C.R. Acad. Inscr.* 1914, 311 f. 583 ff., 697 ff.; *Mélanges*, xxxiv. 283 ff.; *Bull. Arch. Com. Trav. Hist.* 1915, xxxv. xlvii. ff.

¹⁴⁰ *Ann. S.A.A.* i. 161 ff.; *Studi Romani*, i. 241 ff.; cf. *Journ. Sav.* 1915, 373 f.

¹⁴¹ *Zts. d. Pal.-Ver.* xxxvii. 118 f.

¹⁴² *Rev. Bibl.* xi. 227 ff.

¹⁴³ *Ann. Journ. Arch.* xviii. 492 ff.

¹⁴⁴ *Ib.* xix. 63 ff.; cf. *Zts. d. Pal.-Ver.*

xxxvii. 132, 139 ff.

¹⁴⁵ *Pal. Expl. Fund Annual*, iii 1914-15, pp. 133 ff.

¹⁴⁶ *Princeton Univ. Arch. Expeditions to Syria*, Div. III. Section B, Part 5, Leyden (Brill).

¹⁴⁷ *Pal. Expl. Fund Q.S.* 1915, 91 f.

¹⁴⁸ *Zts. d. Pal.-Ver.* xxxvii. 151 f.

¹⁴⁹ *Arch. Anz.* xxix. 259, 274 ff.

¹⁵⁰ *Rev. Ét. Anc.* xvi. 399 ff.

¹⁵¹ *Arch. Anz.* xxix. 422.

NOTICES OF BOOKS.

The Tomb of the Double Axes and Associated Group, and Pillar Rooms and Ritual Vessels of the 'Little Palace' at Knossos. By SIR ARTHUR EVANS, Litt.D., F.R.S., F.S.A. From *Archaeologia*, vol. lxxv. Pp. 94, 7 Plates and 97 Figs. London: Quaritch, 1914.

In this contribution to *Archaeologia*, Sir Arthur Evans describes the remarkable finds of his tomb-excavations near Knossos in 1909, and the results of his digging of the 'Little Palace' at Knossos which began some years earlier. In the work Sir Arthur was assisted by Dr. Duncan Mackenzie.

The tomb-discovery in 1909 was a sequel to that of the 'Royal Tomb' at Isopata, described in *Archaeologia* of 1906 (vol. lxx.). Thanks in part to the *flair* of Gregori Antoniou, the Cypriote tomb-digger who has contributed so much to the success of various excavations in the Levant, several important new tombs rewarded Sir Arthur's search in 1909 and 1910 in the same neighbourhood. The 'Tomb of the Double Axes' is the most important, as showing us a totally new style of tomb-making, resembling a living-house, with stone benches round the sides, no doubt for the convenience of those who may have made periodical visits to the tomb to perform funeral rites. The analogy with the arrangements of Etruscan tombs is very evident, and indicates a new direction for archaeological research as regards Cretan matters. It is indeed by no means unlikely that a close racial connexion between the Etruscans and the pre-Hellenic Aegeans may eventually be proved. The fact, too, that in the tomb two votive double-axes were found, and that the grave shaft is made in the shape of such an axe-blade, is shown by Sir Arthur Evans to prove that the cult of the deity of the double-axe descended also to the grave. 'Religious symbolism could hardly go further than this shaping of the sepulchral cell itself into the outline of the sacred object. With the small shrine of the Double Axes near the head of the grave, the tomb was at the same time a funereal chapel, and it may well be that the benches round the sides of the chamber were made use of for some memorial function in which the whole family partook. On such an occasion, in accordance with the central idea of the Minoan Cult, the essence of the divinity might by due ritual acts be infused into the visible symbols, and, even in the shades, the direct guardianship of the Great Mother be thus ensured to the warrior resting in his emblematic bed. May some such memorial service have been renewed after an interval of time? The evidence . . . of the deliberate re-opening and re-closing of the tomb at a subsequent date is consistent with this possibility. The relics themselves, moreover, are of a homogeneous and strictly contemporary character; which forbids the assumption that this re-opening was for the purposes of a second interment. The painted vases belong to the same "set." They are the clearly marked products of a definite stage of the second Late Minoan Period, and are characteristic of the epoch preceding the great catastrophe of the Palace at Knossos' (p. 56).

In this tomb was found a curious pottery vase with a breast-shaped lid and double coiled handles, which is paralleled in another tomb, that 'of the Polychrome Vases,' by the coloured vessels which give it its name. These are decorated with polychrome

designs in fugitive matt colour, blue, black, and two shades of red, on a plaster base; fresco-painting, in fact, of the same kind as that on the walls of the palaces. The vases have no lids. Their polychrome decoration is an interesting survival into Late Minoan times of the polychrome 'Kamárais' tradition of the Middle Minoan Age, for ritual and funerary purposes only. We may almost compare the Athenian funerary *lekythoi* of later days, with their equally fugitive colour, intended only for the tomb. Another tomb, that 'of the Macebearer,' is so-called from the discovery on it of an interesting ceremonial mace-head of siliceous breccia.

The 'Little Palace' is situated to the west of the modern road to Arkhánais, among the olive-trees, close to the 'Villa Ariadne.' An excavation leads deep into the hillside, and one can see that the work has been an arduous and expensive one. The most interesting points with regard to it specially discussed by its discoverer in this publication are the remarkable casts in the burnt wall-plaster of three wooden pillars with fluted decoration, the use of the single-pillar rooms, the discovery of a stone base for a gigantic double-axe, and of a curious *prochous* of non-Minoan form with relief decoration, and finally the magnificent bull's head rhyton of inlaid black steatite which is one of the chief treasures of the Candia Museum, and of which a reproduction by M. Gilliéron is exhibited in the First Vase Room of the British Museum.

The wooden pillars are remarkable, in that their fluting was in relief 'like that of the Egyptian columns imitating clustered papyrus-stems,' and that they did not taper downwards like other Minoan round pillars, but were straight from capital to base. On the religious significance of the single-pillar rooms and on the gigantic double-axes Sir Arthur Evans has various things of importance to add to his previous remarks on these interesting features of Minoan religion. The bull's head rhyton he describes *con amore*, as it deserves. He shows us the beauty and real magnificence of its style, the treatment of the hair, which 'recalls the treatment of the hair in the Age of Myron,' the extraordinary truth to nature in the modelling and details, and above all the splendid workmanship of the one remaining eye. 'The lens of this consisted of rock-crystal, on the slightly hollowed lower surface of which are painted the pupil and iris. The pupil is a brilliant scarlet, the iris black, the rest of the cornea white. The crystal setting is inserted in a border of red stone resembling jasper, which surrounds the white field of the eye like the rims of bloodshot eyelids. To add to the effect, the crystal lens of the eyes both illuminates and magnifies the bright red pupils and imparts to the whole an almost startling impression of fiery life' (p. 82). Oddly enough, on the base, the artist had idly cut a small graffito sketch of a bull's head.

The comparison of this masterpiece of Cretan art with the silver bull's head rhyton with the gold rosette, found in one of the shaft-graves of Mycenae, leads Sir Arthur into further comparisons with other rhyta of the same type in pottery and other materials, the bull's head rhyton from Gourniá found by Mrs. Boyd-Hawes, the splendid rhyta of the precious metals borne by the Keftian ambassadors to Thothmes III., and a very interesting pottery bull's head rhyton found at Aintab in Syria. This last is a native imitation of the Minoan form. The 'horse-headed' faience rhyton from Enkomi, in the British Museum, is of the later 'classical' form, though of Minoan date. The head Sir Arthur Evans thinks to be that of an ass rather than a horse. Illustrations of other vessels of the same theriomorphic type are given.

H. H.

Handbook of the Cesnola Collection of Antiquities from Cyprus. By Prof. J. L. MYRES. New York: the Metropolitan Museum of Art, 1914. Pp. lv. + 596: illustrated.

Professor Myres is our chief authority on Cyprian antiquities, and to his hands alone could the complete cataloguing of the Cesnola Collection be entrusted. General di Cesnola, in spite of his many and manifest failings as an archaeologist, brought back to

America an unrivalled collection of Cyprian antiquities. It is regrettable that, for reasons that need only be lightly touched upon now, a cloud of uncertainty rested upon the collection for so many years. One always hoped that in time Prof. Myres would be able to undertake the sifting and ordering of the collection, and its real scientific value would be made apparent. This hope has now been fulfilled, as the 'Cesnola question' is settled, by no means to the disadvantage of the gallant old General, whose sterling worth as curator of the New York Museum largely atones for any archaeological *lâches* of which he may have been guilty in Cyprus. Most of the antiquities which in the 'eighties, when we knew very little about the matter, were considered to be forgeries, are nothing of the kind. The only real mystery is the 'Treasure of Curium'; that can never be cleared up, and we need say no more about it.

Prof. Myres describes the objects of the collection very fully, illustrates them admirably on the rather small scale demanded by the size of the book, and gives an authoritative introduction on the history of the Collection and 'Ancient Cyprus, its History and Culture.' The latter will long remain the best short and succinct account of the development of ancient civilization in Cyprus.

The collection contains very complete series of most of the known kinds of Cyprian antiquities, with the exception of those of the Mycenaean colonists of the fourteenth century B.C. (though the rim and handle of a Mycenaean bronze cauldron, illustrated on p. 479, and a tripod of a well-known Dipylon form, but apparently Mycenaean here (p. 478), are notable objects). For Cypro-Mycenaean antiquities the British Museum collection naturally stands unrivalled. New York has a good number of Oriental antiquities found in Cyprus, such as Babylonian cylinder seals, which Prof. Myres describes and illustrates. There are also a good many small Egyptian objects, the Cyprian *prorenance* of which does not seem to be always certain. We notice that Prof. Myres makes a slip in describing some small Egyptian deities or figures as of 'the crocodile-god, Thueris' (pp. 452-3). We must remind him that Thueris was not a god, but a goddess, and that she was not a crocodile-goddess (there was none), but is always represented as a hippopotamus. We are left in doubt whether the figures referred to by Prof. Myres are of Sebek (Souchos), the crocodile-god, or of Thueris, the hippopotamus-goddess.

The *clou* of the collection is the fine series of vessels of gold, silver, and gilded bronze which it contains. To these Prof. Myres devotes a special section, and in his description puts very clearly the difference in age which is known to exist between the different specimens of the famous Cyprian engraved metal bowls which exist in this and other collections. We now know better than to lump all these objects together and say they all belong to one period, dated preferably (owing to some unaccountable fanatical prejudice, born of ignorance, against early dates) as late as they possibly can be, and called indiscriminately 'Phoenician.' Some are Phoenician, no doubt, and late, but others belong to the period of the Egyptian XVIIIth dynasty, and are many centuries older than the former. However, this is a matter of common knowledge now among those who have any real knowledge of anything anterior to the sixth century B.C.; and we need not harp upon it. It is little use flogging dead horses. Prof. Myres says the final word on the subject.

And, indeed, in this catalogue he says the final word on the subject of Cyprian antiquities generally, so far as our present knowledge goes. This book will be an indispensable *rule mecum* to all general students who desire to acquire a knowledge of this subject, and a useful book of reference for those who deal with it in greater detail. We congratulate the author and the Museum on its appearance.

H. H.

Les Sculptures et la Restauration du Temple d'Assos en Troade. By F. SARTIAUX. Paris: Ernest Leroux, 1915. Pp. 160, with 59 Text-illustrations.

There are few monuments of Greek art conspicuous in the records of early travellers and of nineteenth century excavators, of which definite information is so inaccessible, as of the Temple of Assos; and, perhaps as the result of this, there are few buildings concerning which more striking divergencies of opinion have been apparent. It has been dated in turn to every conceivable period from Mycenaean times to the late fifth century B.C. Its sculptural decorations, famous for their singularity in style and arrangement, have only been recovered in part, and the task of studying the remains is complicated by the most unfortunate distribution forced on them by historical accident, so that portions of one and the same slab are now found in Paris, Boston, and Constantinople. Equally unfortunate has been the history of the publication of the American excavations in 1831-3. Both volumes are to-day unobtainable; the second, dealing with the Temple and its sculptures, appeared in 1898, fifteen years after the excavations, but as M. Sartiaux observes, has remained almost unknown; curiously enough, for it is the source of much information, and Clarke's suggested restoration is by no means utterly impossible. One may conjecture that this neglect is due to the untenable theory of date which the Americans upheld. A larger and illustrated publication, announced by the American school in 1897, never got beyond the first of five parts.

M. Sartiaux has filled the gap very thoroughly. He has compiled for the first time a complete catalogue, with outline illustrations, of all the sculpture fragments and proposes for the frieze a restoration more in accord with the existing remains than that of Clarke. Of the metopes the fragments are too scanty to permit reconstruction. He discusses at length the question of date and concludes that temple and sculptures belong to the period of archaic art, between 550 and 530 B.C. A full bibliography and a table of dimensions add to the utility of the work.

The Metropolitan Museum of Art, New York. Greek, Etruscan and Roman Bronzes. By GISELA M. A. RICHTER, Litt.D. New York: 1915. 8vo.

No class of monuments is of more importance for the progress of art-archaeology than Greek bronzes. They are originals, and unrestored, and many of them come from a good period of art. The Americans came late into the field as collectors of works of ancient art, but they have shown their usual energy, and they command unlimited resources; so that now the museums of Boston and New York contain a variety of treasures which will compare with those of any of the museums of Europe, except the very great ones. Miss Richter's catalogue is quite up-to-date; the descriptions careful and full enough, though she does not emulate the minute accuracy of such cataloguers as Amelung. The collection includes several examples of the first importance from the point of view of art. Such are the wonderful chariot of wood covered with bronze repoussé plates found at Monteleone; the very pleasing life-size figure of a boy wearing a cloak, of the first century A.D.; and the colossal portrait statue of a Roman, the identification of which is doubtful, but which is regarded in the text as a portrait of Trebonianus Gallus. There are also important early statuettes of athletes, engraved mirrors, and so forth. The second part of the work contains a description of bronze implements and utensils. There is a very brief but sensible introduction and a bibliography. Every object described is represented by one or more cuts in the text: this is of course an essential point in any modern catalogue. One cannot criticise a catalogue of this kind unless one has had an opportunity of comparing it with the objects. But it is clear that Miss Richter knows her business.

Select Bronzes, Greek, Roman and Etruscan, in the British Museum. By H. B. WALTERS. London: The Trustees of the British Museum, 1915.

This is a series of seventy-three plates, giving representations of some of the most remarkable bronzes in the British Museum, with brief descriptions. When Mr Walters' catalogue of bronzes was published, several of the principal examples were left unillustrated with a view to the present volume.

The plates are photogravures by the Vandyck Printers; they give the surface and texture of the bronzes admirably. The descriptions are brief and evidently intended for the amateur and art student, while the archaeologist is referred to the more learned *Catalogue*. The work makes one feel for the hundredth time the astonishing richness of the National Collection. The appeal of the book to well-to-do amateurs is scarcely timely; but probably the work was well forward when the present distress began. Surely the next work incumbent on the officials of the Greek and Roman Department is an accurate presentment of all the remains of the Mausoleum, which have never been satisfactorily published.

Codex B and its Allies: a Study and an Indictment. By H. C. HOSKIER. 2 Parts: pp. xvi. + 497, ii + 412. Part II. (in separate vol.) has the sub-title: Chiefly concerning \aleph , but covering three thousand differences between \aleph and B in the Four Gospels, with the evidence supporting each side, including the new manuscript evidence collected by von Soden, and the collateral readings of other important authorities. London: B. Quaritch, 1914.

The epoch-making edition of the Greek Testament of Westcott and Hort has now held the field for a generation. The basis of their text was the codex Vaticanus (B), of whose supreme excellence, apart from minor blemishes, the editors formed the highest opinion. How has their work stood the test of time? While the general principles laid down in their Introduction remain, in the eyes of critics best qualified to judge, for the most part unshaken, there has been a growing body of opinion that the merits of the B text may have been overestimated, that the 'neutrality' claimed for it is questionable, that it may represent no more than an Alexandrian recension of the third century, and that greater weight should be attached to the rival 'Western' text, which by the end of the preceding century had obtained a wide currency. There was room, therefore, for a temperate statement of the present position, showing how far a departure from Hort's principles appears to be justified by recent research and discovery, and for a detailed study of the text of the Codex Vaticanus in all its bearings.

Mr. Hoskier's two bulky volumes of some 900 pages unfortunately cannot be said to supply this. The author, who has established a reputation as an indefatigable and scrupulously accurate collator of MSS and Versions, has in this and a previous volume come forward with a new theory as to the genesis of the New Testament text, or rather of the text of the four Gospels. This larger and more ambitious task has proved beyond his powers. He has not attempted to meet and controvert some of Hort's fundamental principles, and he has failed to establish his own theories. Above all, he alienates critics and mars his work by the attitude of scathing contempt which he takes up towards his distinguished predecessors and co-workers in the same field. Previous critics of the Westcott-Hort text, like the late Dr. Salmon, have ventured with diffidence to disagree with the conclusions of those master-workers. Mr. Hoskier has no such scruples and out-Burgons Burgon in his withering 'indictment.' 'This old bosh about a "Syrian" text!' (i. 270) 'this "Q" business' (i. 41, note), in such terms does he refer to theories which have now gained wide acceptance.

Mr. Hoskier's own theory, we gather (we find it nowhere succinctly stated in these pages), is that a polyglot copy of the Gospels (Greek, Latin, Syriac and Coptic) existed in early times, and that the Greek text of at least some MSS has been largely influenced by the texts in the other languages. The B text, in particular, has been affected in this way and, so far from being 'neutral,' is defaced by numerous supposed 'improvements'

of an 'Alexandrian' type.' 'I re-affirm my belief,' he writes (i. 7), 'that a polyglot text influenced \aleph throughout. And I charge B with being the child of a Graeco-Latin recension, and by its scribe or by its parent of being tremendously influenced by a Coptic recension or by a Graeco-sahidic ^{and}/_{or} a Graeco-bohairic MS.'

'A categorical answer count by count' to his 'indictment of B,' such as Mr. Hoskier desiderates, would require almost as ample space as the author allows himself. Within the limits of a short notice a few general observations are alone possible. First, as to Mr. Hoskier's classification of instances. Hort never claimed that the text of B was impeccable; the scribe was to a certain extent liable to the usual errors of his class. But Mr. Hoskier's lists include indiscriminately a mass of minor 'clerical' errors which might with advantage have been placed together apart from variant readings of real moment. Then, there are long lists without comment of readings which may be variously accounted for and having no clear connexion with the headings under which they are placed. Where comment is added, it too often takes the form of general assertion, or astonished question unsupported by argument; exclamation marks are a poor substitute for sober reasoning. Again, Mr. Hoskier fails to take account of alternative possibilities. He forgets that, as Hort reminds us (*Introd.*, p. 25), 'scribes were moved by a much greater variety of impulse than is usually supposed.' His outlook is limited to his mass of authorities, and he constantly puts forward as the only conceivable explanation of a reading a remote possibility of the influence of a Latin or Coptic version on the Greek text. Under the head of 'Latin' or 'Coptic sympathy' he does not sufficiently distinguish between (1) cases where B merely sides with the version and (2) cases where it adopts or is alleged to adopt a Latin or Coptic expression foreign to the Greek language. As regards cases of the former type, Mr. Hoskier, we admit, demonstrates the existence of a close and interesting connexion in certain parts of the Gospels between the text of B and that of the Egyptian versions. This, however, constitutes no proof of Coptic influence on cod. B, and may more easily be explained by a parent type of text from which both are derived. To establish his theory some indubitable instances of the latter type, viz. actual Copticisms or Latinisms in the Greek of cod. B would be required. The few instances alleged are quite unconvincing. Thus, the author asks (i. 194) 'Have we sufficiently considered the frequent use of *ερχεται* in Mark for *ηλθεν* of the synoptists, perhaps growing out of the work of a translator from the indeterminate Latin *venit*?' It is of course impossible to consider this particular instance of the historic present apart from the others, such as *λέγει*, which abound in St. Mark. After verbs of speech, the verbs which most commonly appear in the historic present in Greek documents of all periods are verbs of coming and going. Herodotus and Thucydides supply innumerable instances. The suggestion of the influence of an ambiguous *venit* is ridiculous. Reference to the Ptolemaic papyri would have shown Mr. Hoskier that the writing of *-es* for *-as* began very early, and that the suggestion (i. 238) that *ἐξουθενούντες* (*pro. -as*) arose out of an indeterminate *spemntes* is highly improbable. We see no more reason to detect Coptic influence (i. 20, 86, etc.) in the thoroughly Greek position of the dependent personal pronoun in phrases like *αὐτοῦ τὴν οἰκίαν, αὐτῶν οἱ ὀφθαλμοί*. The final count in our 'indictment' of Mr. Hoskier is a defective acquaintance with Greek grammar, especially of the N.T. period. He makes much of the historic present, which he considers to have been favoured by the Alexandrian School and B, but has a very hazy idea of what is meant by it; his instances include e.g. *διὰ τοῦτο λέγω ὑμῖν* (i. 43) and *αἰς* and *αἰὼ* in Plautine dialogue (133 note), where of course the present is not a substitute for a past tense. The 'historic imperfect' of which he speaks is not, we think, a term recognized by the grammarians. Other instances might be cited.

We would commend to Mr. Hoskier's attention a reading in which B stands practically alone, and even Hort hesitated to follow it, *ἐπωρᾶ εἰς εἰρήνην*, Luke xiv. 32. The phrase is a Hebraism borrowed from the LXX, with which the Evangelist was intimately familiar, and the B text is undoubtedly original.

H. St. J. T.

A History of Persia. By LIEUT.-COL. P. M. SYKES, C.M.G., C.I.E. In two volumes. Pp. xxvi + 544 and xxii + 565. With Maps and Illustrations. Macmillan and Co., 1915.

This is an attractive work, and the fact that its author, from extensive travel and long residence in Persia, knows the conditions of life there more thoroughly than is usual for anyone of European birth will lend it permanent value. Colonel Sykes' previous works and articles have thrown light on districts of Persia far from the beaten track, and to a great extent unmapped and unexplored; they have also done much to familiarize readers in this country with the customs and peculiarities of a people among whom he has spent so many years of official life upon the best of terms. It was but natural that he should gradually have formed the ambition to write a comprehensive history of Persia that should be self-contained and complete. He lays no claim to original research for any of the numerous periods embraced within it; and, indeed, since much of it was, as we gather, written in Persia itself, it would have been difficult, if not impossible, to probe very deeply into sources available only to a student who should have constant access to at least one of the great libraries of Europe. When we have said that, we have done with criticism, and may indulge in the far more congenial task of warmly recommending the book, with its vivid descriptions and numerous illustrations, to the attention of those who would learn something of the country which for a time threatened the development of Western civilization and was only defeated by the heroism of Greece.

Colonel Sykes is fully alive to this aspect of the great drama, which the name of Persia must always call up in the minds of those whose studies and interests have caused them to view the struggle from the Western standpoint. From the special advantages he has enjoyed, he has been enabled, as he justly claims, to acquire the Persian point of view, and he has here furnished the reader with a very comprehensive picture of the country and its fortunes, not only during that eventful century and a half, but throughout the long course of its earlier and subsequent history. Some idea of the ground covered by the volumes may be gathered from the fact that the first opens with the early history of Elam at the beginning of the third millennium and the second carries its narrative down to the summoning of the National Assembly of Persia and the signing of the Constitution some nine years ago. There can be no doubt that they do supply a want and will serve as a handy work of reference, while the half-tone plates and outline illustrations scattered lavishly throughout their pages give in themselves a very good idea of the development of Persian art and of the main features of the country. Their author is to be congratulated on producing a very striking memorial of his twenty-one years of service in a land which for a time came within the European horizon, and has always played a great part in the changing relations of the near and the far East.

The Ancient East. By D. G. HOGARTH. Home University Library of Modern Knowledge. Pp. viii + 256. London: Williams and Norgate, 1914. 1s.

The editors of the Home University Library have been really successful in their choice of contributors. In so many educational series of this character it has been thought sufficient to entrust the separate sections to the hands of experts, without any reference to their varying capacities for explaining their subject to an audience other than that to which they are accustomed. This practice has led to the multiplication of little books, with none of the advantages and all the drawbacks of the scientific treatise. The restricted space of each volume has often caused the dry bones of history or science to be subjected to a still further process of desiccation, with the result that the unfortunate reader, who has been tempted by the great name on the title page or the small price on the cover, is strengthened in his former conviction that, after all, history and science are not for him.

This danger the Home University Library seems, so far as the present reviewer has

sampled its volumes, to have successfully avoided. The little books are written by men and women who can write and who have realized that, for purposes of education, one suggestive fact is worth a heap of detail. A distinguished educationist, an acquaintance of the reviewer, who has purchased all the volumes, has, if we may credit his own statement, read them all. We are far from following or even enjoining his example. But there is no doubt that the volumes do hang together in groups, the members of each of which approach a general subject from various sides. This is doubtless intentional, for in the later volumes the publishers have suggested groups, though sometimes perhaps in rather a mechanical way. If we had the placing of Mr. Hogarth's volume we should not hesitate in assigning it to a group of four, such as, were we asked for advice, we should recommend to anyone (for example, an intelligent sixth-form boy or a hard-headed man of business) who happened to want to get an insight into ancient history as a whole. The group would consist of Miss Newbiggin's *Modern Geography*, Dr. Marett's *Anthropology*, Professor Myres' *Down of History*, and Mr. Hogarth's new volume on *The Ancient East*, to be read in the order given.

The first would give him some notion of the effect of climate upon racial character and, generally, the influence of environment on man. The second would broaden his previous notions as to the scope of historical enquiry, and would give him an outline of human development before the historian, in the stricter sense of the term, can take up the tale. Professor Myres' book would describe for him the rise of the great civilizations; and, finally, Mr. Hogarth's volume would weave these converging strands together and show their close bearing on the periods of classical history which may hitherto have appeared to him as a study apart. We venture to think that such a use of these volumes would give an intelligent reader a far better notion of the unity of history than the reading of many more ambitious works.

Of the four volumes we have named Mr. Hogarth's must have been the most difficult to write, dealing as it does with the millennium that preceded our own era. But he has succeeded, in a rather striking way, in bringing out the main features of the great struggle between East and West, ending apparently in the latter's political victory, but, as Mr. Hogarth points out in his Epilogue, actually laying the foundations for that more remarkable victory of an Eastern faith. There is much in Mr. Hogarth's volume which is worthy of study at the present moment when Hither Asia is again playing a part in the world's history.

A Handbook of Greek Sculpture. By E. A. GARDNER, Litt.D. xxxii+601 pp. with 153 illustrations. London: Macmillan. 10s.

We welcome this new edition of Professor Gardner's work. The book has for long occupied a unique position among Histories of Greek Sculpture because of its comprehensive range, pleasant style and moderate size, three qualities not easy of combination. This new edition, enlarged by about fifty pages and a couple of dozen illustrations, will easily maintain the place won by the older volume. Some idea of the new matter so skilfully grafted on to the old stock will best be gained by a recital of the more important works which have been discovered since Professor Gardner first wrote and of which illustrations are now given. In some cases the statues were in Museums, but their worth had not been recognized. They include, then, the Naxian Sphinx at Delphi, Colossal Apollo from Sunium, Delphi Charioteer, Frankfurt Athene (Myron), Terme Apollo, Atalanta from Tegea, Dresden Maenad, Agias, Damophon's works, the Cerigotto bronze, and an archaic bronze from the sea near Thisbe. Hermes Propylaeus from Pergamon, and the bronze statue of a boxer in the Terme Museum. Rather remarkably, however, despite the *creat* on p. 235 and elsewhere, there seems to be no mention of the Ludovisi throne and its counterpart, while the magnificent bronze head of a boy from

Beneventum, now in the Louvre, might well have found a place. In the valuable introductory chapter, room has been made for Löwy's doctrine of frontality.

Where so much is to praise it may be as well to notice some places where Prof. Gardner's conclusions seem unsound, or at least, even in a professed Handbook, to need amplification. (1) p. 17 and p. 151: The technique of the Spartan *stelai* is still regarded as due to the influence of wood carving. But the early wood worker worked a log, not a board; the influence of the wood-log technique must be sought in the *xoanon*-shaped figures. See Dickins, *Acropolis Museum Catalogue*, Intr. p. 12. (2) p. 119 and p. 175: Prof. Gardner finds great difficulty in accepting Samos as the home of the group of works headed by the dedication of Cheramyes which was found in Samos. Why not, then, mention the cogent arguments by which Dickins maintains a Naxian origin (*A.C.* p. 151), especially as his main argument, the Naxian Sphinx at Delphi, is now given a full page illustration (Fig. 15)? (3) p. 179: The three-bodied monster is still called Typhon, despite his peaceful appearance. See *A.C.* p. 81. The point is of importance in view of suggested restorations. On the whole, enough use does not seem to have been made of the *Acropolis Museum Catalogue* (Vol. I., 1912) in dealing with early Attic work. (4) p. 209: No mention is made of attempts to provide Aristogeiton with a suitable head, though the 'Pherecydes' is discussed on p. 237. As the latest claimant is the British Museum herm, one of Prof. Gardner's useful footnotes might have given a reference to Schröder's article, *Jahrb.* 1913, p. 26. Similar treatment might have been accorded the 'Capronesi' head of the same Museum (A. H. Smith, *Cat.* 1780) when dealing with the Delphic Charioteer. (5) p. 264: We believe that the 'Delphic Charioteer' is from the group recorded by Pausanias as dedicated by the Cyrenaeans. Pausanias may have passed on an incorrect tradition about Amphion, but why does Prof. Gardner urge that 'the date of Amphion' makes the story impossible (p. 265, Note 1)? Two *artistic* generations need not cover a very long period. (6) p. 265, Note, par. 2: Calamis and the well known altar: surely an archaistic work, as, indeed, Kavvadias judged it years ago in the *National Museum Catalogue*. (7) Coming to the fourth century B.C.: the section on Scopas, reinforced as it is by the Tegean Atalanta, the Dresden Maenad and the Medici head of Meleager, is very good. Perhaps hardly enough room is given to Praxiteles. The article by Svoronos on the Mantinea reliefs (*Das Athenen National Mus.* pp. 179-236) might have been mentioned. We rejoice to find that Furtwängler's attribution of the ugly 'Eubouleus' head to Praxiteles does not find favour (p. 331). (8) The Agias, of course, has revolutionized the study of Lysippos. So much so, that while Prof. Gardner rejects the Apoxyomenos as typical of this master, Wolters rejects the Agias and retains the Apoxyomenos (*Sitzungsb. d. Bayer. Akad.* 1913, p. 40). This might have been stated in p. 443, Note 1. (9) p. 478: Relief work is still inadequately treated, though references are given to the valuable work of Wickhoff and Wace. Why is it necessary to apologize, even slightly, for the Aphrodite of Melos (p. 527) and, so to speak, attempt to score a few points at her expense in favour of the Parthenon sculptures? (10) p. 561: We are glad that Prof. Gardner still believes in the British Museum bust of Julius Caesar. It should, however, have been stated that some of the highest authorities regard it as a work of the eighteenth century. Will not some one undertake a fresh examination and, if possible, settle the question? Finally, we note a remarkable and, to our mind, serious omission. There seems to be no mention made of the famous 'Sandal Binder,' a work, as Löwy has shown, of supreme importance in the history of plastic art. With fine replicas in the Louvre and Lansdowne House, and the head in the British Museum (A. H. Smith, 1785), this work surely merited both notice and illustration. The best summary is that in Arndt, *Glyp. Ny-Carlsberg*, pp. 177-181.

The Greek Commonwealth. By A. E. ZIMMERN. A Second Edition, revised.

It was easy to foretell the success of this work when it first appeared in 1911, and we congratulate Mr. Zimmern on the production of the second edition. Some errors of fact have been removed, a few other alterations made, and a very useful map of Attica, showing the distribution of her various industries and the character of the soil, has been added.

A long review here is unnecessary, as the book has already been noticed at some length in this journal (*J.H.S.* 1911, pp. 317-8). But is the parallel drawn on p. 344 between war in the old classical period and games in our own time at all exact? Is not Mr. Zimmern here equating *all* the city-states of Greece to any single state of the modern world?

Catalogue of the Greek and Roman Lamps in the British Museum. By H. B. WALTERS. London: Trustees of the British Museum, 1914. Pp. xl + 240, with 43 Plates.

In his Catalogue of Greek and Roman Lamps Mr. Walters has added another useful and carefully prepared book to the excellent publications of the British Museum. The Museum collection consists of a large variety of lamps from different parts of the ancient world, and many of the specimens, both in bronze and pottery, rank among the finest examples known both for their archaeological and for their artistic value. Nothing is more useful in a work of this description than good and plentiful illustrations, and Mr. Walters has amply fulfilled these requirements with over 350 drawings in the text and 37 plates of photographs. Students would do well to study carefully these excellent illustrations, as much of mythological and archaeological value may be learnt from the large variety of subjects upon decorated lamps. In the introduction there is a very comprehensive history of the lamp, but the author is perhaps too severe when he states that excavations have yielded no certain examples of early date in Egypt, as stone lamps have been found belonging to the 12th dynasty at Lahun, in the Labyrinth at Hawara and at Mazghuneh; also small bowls or dishes, evidently used as lamps of the floating wick variety, have been met with from pre-dynastic times onwards.

The most useful portion of the book from the archaeologist's point of view is the series of types, which includes over a hundred examples, and it is only to be regretted that the early Christian forms and some other varieties that do not appear to be in the British Museum collection could not also have been included.

Mr. Walters has put forward a very good outline for the dating of lamps, which is mainly based on the works of Dr. Dressel and Herr Fink. The accurate dating of lamps is, however, not yet an accomplished fact, and in actual practice the dates given will probably need a certain amount of modification. For instance, it is difficult to believe that No. 1400, which is stated on p. xvii to belong to the 2nd century B.C., is as early as that by nearly a century. It also hardly seems to come under the heading of the 'Delphiniform' type, which, Mr. Walters states, derives its name from fin-like projections on the side, giving it a rough resemblance to a dolphin. Another reason for this title may also be stated, viz., that on some of the best examples of this type the projection itself actually takes the form of a dolphin. The author appears to accept Loeschcke's statement that types 78-80 die out in the reign of Tiberius, but this date certainly seems to be too early, as several examples occur on the German Limes at such places as Cannstatt, Heidenberg, Pfünz, etc., that can scarcely have been occupied before the closing years of the 1st century A.D. It may also be added that types 90-94 extend well into the 2nd century A.D., and that some of the best examples of types 95-101 may well belong to the second half of the 1st century A.D., which probably accounts for the fact that the stamps of some potters who made this form also occur on types 78-94. These are, however, only small points, which with the help of this series of types will soon be definitely settled, and Mr. Walters is to be heartily congratulated on producing a most valuable work.

J. P. B. F.

An Introduction to the Study of Prehistoric Art. By ERNEST A. PARKYN, M.A. 8vo. Pp. 349. 16 Plates (2 coloured) and 318 Illustrations in the Text. Longmans, Green and Co., 1915.

Three years ago Mr. Spearing traced the development of art from its beginning in palaeolithic times to its climax in Greece. Much the same ground is here gone over again by Mr. Parkyn, whose work is a compilation rather than an addition to knowledge. Many will be glad to have in one volume a collection of illustrations of prehistoric remains, even though the bulk of them already figure in accessible publications; but the title leads one to expect more than this. The author has borrowed right and left, but has not aimed at paying a high rate of interest. With such a wealth of material it should have been possible to propound some theory of development, to emphasize points of contact, to point out ways of communication and account for the ups and downs of art in prehistoric times. Archaeological excerpts undoubtedly have their uses even apart from original investigation, but their artistic interest is for the most part secondary; and even an *introduction* to the study of prehistoric art should invert the process and look at early remains from the artistic standpoint. However daring, a treatment on those lines would at least be suggestive; but the guiding principle of the present work is caution. Neutrality in such a sphere is anything but heroic, and there are many opportunities for original treatment in a review of art (or even industry) from the Drift to Late Keltic times. For instance, the hint on p. 9 might have been elaborated with a view to finding the origin of carving in the round, acknowledged to be the earliest form of art in the Cave period; or again, the evolution of Late Keltic art from that of La Tene, and ultimately from Greek sources, might have been insisted on, without reviving antiquated notions. As a picture-gallery the book will no doubt appeal to a large circle, but readers of the text will note that the proof-reading has been inadequate, especially in regard to foreign words; infinitives are split in twain, and *l'art gauloise* will give our Allies pause.

The Golden Bough. Third Edition. By SIR JAMES FRAZER. London: Macmillan and Co. 1911-15.

The *Golden Bough* now lies before us in its final form: the two volumes of 1890 can scarcely be recognized in the twelve which make up the third edition in its seven parts: The Magic Art and the Evolution of Kings; Taboo and the Perils of the Soul; The Dying God; Adonis, Attis, Osiris; Spirits of the Corn and of the Wild; The Scapegoat; and Balder the Beautiful, with a final volume of index and bibliography. With the alteration of size the work has changed in large measure its character: the original was essentially a brilliant essay on the nature of early conceptions of deity and on the theory of sacrifice: in its present shape it has become an encyclopædic treatise on folk-lore. This, indeed, is probably the characteristic which appears to the author of the greatest importance, for there are many traces that he has ceased to hold his former theories with the vigour which he showed in the first edition, and that he cares more for the incidental matter introduced than for the main theory which it is proposed to establish. Nor in this estimate of his work is Sir James Frazer at fault; though in erudition and scholarship he cannot vie with J. Grimm, though his indebtedness to Mannhardt and others lessens his claims to originality, and though at times he tends to become prolix, nevertheless he has great stores of knowledge derived from wide reading, and—what is far more important—he possesses in a really high degree the power of setting forth in an interesting and sometimes even fascinating form both the materials on which he bases his speculations and the speculations themselves. Hence it is certain that to English-speaking scholars his works will for many years afford a rich storehouse from which can be selected facts to support theories very different

from those held by the author. Moreover, on many points of detail will be found expressions of view which are both novel and valuable.

But of the main theories of Sir James Frazer, the priority of magic to religion and the annual slaying of a divine representative in order to promote the life of the herds, the crops and men, and the use of these theories to explain Aryan religion, it is impossible to deny the appropriateness of the judgment of the learned and eminently judicious Wissowa in *Religion und Kultus der Römer* (ed. 2, p. 248, n. 5) when he writes with reference to the *rex Nemorensis*, "An die Überlieferungen den aricinischen Kultes knupfen die weitausgreifenden Untersuchungen von J. G. Frazer an, aus denen es mir aber bei aller Bewunderung für das eminente Wissen und die aussergewöhnliche Kombinationsgabe des Verfassers nicht möglich gewesen ist etwas wesentliches für das Verständnis der römischen Religion zu gewinnen." The cause of this failure to contribute anything substantial to the solution of the problem of religion is to be found in the power of combination noted by Wissowa; Sir James Frazer sees similarities, but cannot see differences: the method of patient discrimination of elements has no attractions for him in his search for large and effective combination, and the result, as is inevitable, is that the immense structures which he rears lack foundations and fall in ruins as soon as their bases are examined with due circumspection and care. Some of the worst of the errors which disfigured Sir J. Frazer's work have, it is satisfactory to note, disappeared in the third edition; the *sexta luna* of Pliny ceases to figure as the sixth month of the year (xi. 77), the idea that Plautus (*Truc.* ii. 5, 25-9) refers to the priests of Nemi as mortal Jupiters (ii. 379) has been exorcised by Dr. Farnell, and it is admitted (ii. 311) that the simple facts of the Roman calendar dispose of the theory which connects the *refugium* with the supposed killing of a victim at the Roman Saturnalia. But the fact that these important supports of his theories have turned out to be mere mistakes of his own has not availed to induce the author to reconsider the theories which induced him so to misinterpret facts, and even the exposure by many competent minds of the mass of untenable hypotheses which made up his attempt to bring the Crucifixion into the main line of his theories, has not persuaded him to do more than relegate his theory to an appendix (ix. 412-23), where it will remain as the best possible *reductio ad absurdum* of the author's tenets.

Within the limits of a review it is only possible to indicate a few of the main defects of the author's methods of developing his theories. Sir James Frazer has found (i p. ix.), not without surprise, as he has not studied the works of Hegel, that his own views on the relation of magic and religion have points of contact with those of the philosopher. The coincidence might have warned the author to consider how it came about that he was uttering pronouncements on the origin of religion while having no claim to adequate philosophic training or knowledge. The origin of religion, it cannot be too often pointed out, is not a question for anthropology to decide: it is essentially a question of philosophy, and the most difficult of all questions, one far from solution, and one which science can no more solve than it can solve any other question of philosophy. In dealing with this question Hegel was acting strictly within his rights as a philosopher: his solution is not very satisfactory, because his general philosophy is open to serious criticism, but he was not attempting with alien materials to achieve a result which could not be reached in this way. On the same anthropological grounds Prof. W. Ridgeway has in his recent work, *The Drama and Dramatic Dances of non-European Races*, come to the perfectly decided conclusion that magic is not prior to religion, and that belief in spirits of the dead is, as Elard Hugo Meyer held, the source of all religion. The opponents can never convince each other or anybody else, for they are seeking to attain results which the nature of the subject as treated by them denies. Sir James Frazer assures us (i. 220-43; xi. 304-5) that the progress of thought has been from magic through religion to science, that man first believes in a certain established order of nature on which he can surely count and which he can manipulate for his own ends, and that he falls back on great invisible beings when he finds that both the order and the control are imaginary, and ascribes to these beings the far-reaching powers which he once arrogated to himself.

But where in his vast treatise is there the slightest evidence as opposed to mere assertion adduced for this constitution of the mind of primitive or other man! The suggestion is a pure *petitio principii*, based on the same fallacy which produced Euhemerism.

A second fundamental error of the author is that expressed in his assertion (i. p. xi). "It can hardly be too often repeated, since it is not yet generally recognized, that in spite of their fragmentary character the popular superstitions and customs of the peasantry are by far the fullest and most trustworthy evidence we possess as to the primitive religion of the Aryans. Indeed, the primitive Aryan, in all that regards his mental fibre and texture, is not extinct. He is amongst us to this day." For Sir James Frazer all the evidence of ethnology, all the theories of the origin of race and the mingling of peoples are as nothing, and tales from the Deccan are cited as evidence of Aryan views, oblivious of the fact that whatever admixture of Aryan blood be allowed for north-west India in the early dawn of history, the proportion of such blood in the people of the southern parts of India, the great majority of whom do not even speak an Aryan tongue, must be nearly infinitesimal, and that folk tales are rather representative of the lower than of the higher classes of the population. We have here again a useful corrective in the views of Prof. Ridgeway, who goes to the opposite extreme and decides that the *Atharvaveda* is not Aryan at all.¹ On the other border of Aryan language Sir J. Frazer treats the Celts as clearly Aryan, and his faithful follower, Canon MacCulloch,² manfully supports this view in the face of very formidable authority to the contrary. The problem of Aryan religion is in all human probability insoluble, but it is perfectly clear that to declare that modern European or Indian folk-lore represents the religion of the Aryans—in whose reality as a single united people in early times Sir J. Frazer believes—is to fly in the face of ethnology, and to do so without explanation or defence is not excused by the fact that the doctrine is borrowed wholesale from Mannhardt.

A third source of confusion closely akin to the second is due to the acceptance as explaining classical antiquity of the customs and beliefs of the aborigines of Australia and elsewhere. The use of such evidence must be subject to the most careful scrutiny if it is to be accepted as of value. When a practice recorded in classical antiquity is very similar to one recorded of some modern savage race then, if enquiry shows a plausible explanation of that savage custom, it is legitimate to seek to apply that explanation to the classical usage, bearing however in mind that the same result may have different causes. But when from a savage custom, in itself of the greatest obscurity, a stage of society is conjectured into existence and then applied to the classical world, it becomes necessary to remember that so far is it from being true that mankind is essentially similar at all times and in all parts of the earth that history shows us the most extraordinary variations in national traits, and that a custom which is proved to have existed among savages may easily be not a universal stage of human development but a bypath, straying into which has condemned the race in question to savagery. Hence the rule observed by all scientific students of religion that a religion must be explained as far as possible from within the sphere of ideas which is found expressed in that religion. It is disregard of this fundamental principle which has induced Sir J. Frazer to cling to his theory of the *rex Nemorensis*, and in the face of the silence of all classical tradition to conjure up the yearly offering of a man at the Saturnalia and to assert that his theory is proved by evidence of 301 A.D. from the Danube, in which *inter alia* the essence of the practice recorded was a death by suicide, not a sacrifice,³ and to find in the records of the kings of Rome proof of the descent of the kingly power to the foreign husband of a daughter of the former king (ii. 266-323).

The last source of mistake which can be here dealt with is the author's ill-advised disregard of the evidence of Vedic literature. It is true that the names of Oldenberg,

¹ *Dramas and Dramatic Dances*, pp. 121-5.

² *Religion of the Ancient Celts*, pp. 294 sq.

³ See *Journ. Royal Asiatic Society*, 1915, pp. 133-8.

Macdonell, and Hillebrandt are to be found in the collection of works used by the author, which is misnamed a bibliography, but the use made of the vast stores of authentic information of actual ritual usage contained in the many published Vedic texts is wholly inadequate, and indeed inexplicable. Hence we have grave errors such as the mistaking of the mere speculations of the Brahmins (ix. 411) for real popular beliefs,⁴ and the overlooking of many pieces of evidence, which would however have had the grave disadvantage of warning the author of the unsafe grounds on which his theories were based. One striking instance may be adduced: Sir J. Frazer has now (x. 328-46: xi. 1-44) abandoned the real support of the theory of the offering of the god as a magic rite to produce fertility, namely, the fire festivals of ancient Europe, which Mannhardt interpreted as the burning of the vegetation spirit, by accepting the view of Westermarck that the burning was intended to destroy witches. It is true that despite his definite acceptance of the new view, which strictly speaking overthrows the whole of the principle of the death of the god in order to come to life again, Sir J. Frazer still argues that Balder was burned as a god, but this is perhaps merely an inconsequence. What is more important is that there exists⁵ a record of a period, which may safely be placed at not later than 800 B.C., which tells us of an Indian rite performed at a winter solstice in which an Aryan and a Śūdra fought each other for the possession of a round white skin, the Aryan proving victor: the text says expressly that the skin was a symbol of the sun, and every competent authority on the subject is agreed that the rite was essentially one connected with the giving of power to the sun, a fact which tells quite definitely in favour of the view of Mannhardt that the modern fire festivals are essentially connected with the sun's course. But at the same time the same texts show us that the fire was always a most effective weapon to burn up the evil spirits which assailed the sacrifice, an explanation which is surely worth at least as much as Westermarck's researches among the Berber tribes. Both features were at any rate present in the Indian winter fire festival of 800 B.C., and the choice between the two made by Sir J. Frazer is needless and unjustified; the difficulty is rather to assign each its due share.

A. BERRIEDALE KEITH.

The Asiatic Dionysos. By GLADYS M. N. DAVIS. x+276 pp. London: G. Bell and Sons, 1914. 10s. 6d. net.

This book is an interesting example of the misapplication of erudition in support of a theory based on false premises. Against the prevalent theory of a Thracian origin of Dionysos the author raises the objection that it is necessary to explain the existence of the parallel Soma cult in India, and the references to the connection of Dionysos with that country, Phrygia and Crete, and that this can only be done by holding that the Thracians were the proto-Aryans and that from Thrace the Soma cult spread into Asia and Greece, a hypothesis contradicted by the fact that the worship is not found in north-western Greece. The reason is obviously wholly without weight, but it has sufficed to lead the author to an elaborate effort to prove that the Dionysos myth and faith were introduced from India, being a reflex of the Soma cult: Soma in the process of entering Greece became a wine god: the chants of the priests were preserved in cult epithets: the metaphors used by them of the Soma were transformed into myths, while in the mysteries of Eleusis some of the deeper faith lingered on. Thus Dionysos Melpomenos is to be traced to the fact that in the Veda Soma is said to flow singing through the sieve, the Zagreus myth is due to the slaughter of a ram by the Brahmins at the time of the Soma sacrifice, as 'it is very probable that this ram's fate was considered typical of that

⁴ See *Journ. Royal Asiatic Society*, 1915, pp. 127-31.

⁵ Full accounts of the Mahāvratā rite which took place at the winter solstice will be found

in A. Hillebrandt, *Die Sonnenwendfeste in Alt-Indien* (*Roman. Forschungen*, v.), and in *Trans. of 3rd. Internat. Congr. Hist. Rel.* ii. 49-58

of the Soma plant,' the Titans, connected with Sanskrit *titānah* are powers of the air, and also identical with the seven Manus and so on. Naturally after this it is not surprising to find that Bakchos is Bhaga, the distributor of good things, or Iakchos Yakṣa, or the Asbolos of Hesiod (*Scut.* 185) Áśvala, or the Nereides connected with Nara, or the Centaurs Gandharvas, or that *rājin* means 'winged' or *dih* 'pollute,' or indeed anything else. It must not, of course, be supposed that the responsibility for the original conception of the ridiculous derivation of Dionysos from Soma rests on the author, but she must bear the responsibility of resuscitating a view of Langlois and Maury which has long since been relegated to the limbo of the other theories of a discarded school of mythology. One accusation, however, levelled at Maury is undeserved: the word *rīna* which he is accused (p. 140) of inventing is the Sanskrit *rena*, upon which, had she recognized it. Miss Davis could have based a strong argument in support of her theory.

The defects of the mythological portion of the work will doubtless warn the non-Orientalist of the danger of trusting the evidence adduced in the first part (pp. 23—132) to prove that Greek philosophy was deeply indebted to India, that Asianism in history and rhetoric is due to India, that 'naturism' in Greek art, and the musical innovations of Timotheos and Phrynis are due to the same source, and that the metre and verbal style of the dithyramb are borrowed from India. To refute these theses in detail would be needless: it is sufficient to say that the author does not even know of the existence of the one really serious attempt to prove the indebtedness of Pythagoras to India, that the doctrine of the ages of the world is not known to a single Vedic text proper, and is doubtless much later than the same doctrine in Greece, that Asianism in history and oratory cannot have been due to Indian influence if for no other reason than that an ornamental Sanskrit prose did not exist for centuries after the date suggested by Miss Davis (p. 75), that the features styled 'naturism' in Greek art are found there long before India had an art which could be imitated, that no person knows anything about the nature of Indian music for centuries after the Christian era, and that the poetical style and metre which are supposed to have influenced the dithyramb are not recorded in India until centuries after the dithyramb had flourished.

It need only be added that the author has been singularly unfortunate in her choice of authorities on Vedic religion and life, and that the book is disfigured by far too many misprints and minor slips.

A. B. K.

INDEX TO VOLUME XXXV

I.—INDEX OF SUBJECTS

A

AEGINA, inscriptions, 263 ; prehistoric pottery, 199
 Aeolians, 177
 Akhmin, flute from, 20
 Alexander, Ionian festival, 184
 Alnwick, silver dish at, 66 ff.
 Amphipolis, 6 ff.
 Antaios krater, 110
 Anthropometry, 225 ff.
 Antias, name on vase, 193
 Antigonus Monophthalmus, Ionian League, 184
 Antioch, art of, 75
 Antiphellus, tomb, 103
 Apaces, 32
 Apellaeus, month, 31
 Aphrodite, 68
 Aramaic parchment, 22
 Aramasdes, 32
 Arbitration, Ionian inscription, 174
 Arcadia, inscriptions, 263
 Arcturus, rising, in Hesiod, 92 ff.
 Ardenes, 32
 Arezzo, Amazon krater at, 115
 Argos, inscription, 263 ; prehistoric pottery, 199
 Arsaces, 31
 Artemis, 67
 Arthasthates, 32
 Aryazate Automa, 31
 Arzate, 31
 Asia Minor, inscriptions, 260, 267
 Asibátum, 40
 Aspomaces, 32
 Asthates, 32
 Athena, 67
 Athens and Rhesos, 5
 Athens, Attic vases at, 109, 137
 Attica, inscriptions, 261
 Avroman, parchments from, 22 ff.

B

BALSEIRA, hyparchy, 31
 Baithabarta, 31
 Baraces, 31
 Baseirta, 32
 Bazzichelli psykter, 189 ff.
 Berlin, Attic vases at, 109 ff.
 Bias of Priene, 178
 Bistheibanaps, 32
 Boeotia, inscriptions, 263
 Bombyx, 15
 Bonn, hydria of Euthymides at, 194
 Boston, kylix, 109, 118, 123
 British Museum, vases, 109 ff., 193 ff. ;
 flutes, 16 ; inscription, 168 ; Nereid
 Monument, 208
 Brygos, vases of, 129
 Bulgaria, inscriptions, 270
 Byzantine treatise on taxation, 26 ff.

C

CANON, in sculpture, 225 ff.
Capistrum, 18
 Cassel Apollo, 236, 256
 Castalia, 69
 Castellani kylix, 134
 Cephallenia, inscribed cup, 265
 Chaeronea, prehistoric pottery at, 200
 Chosstroes, 32
 Chremonides, decree, 261
 Cicero, on heroes, 3
 Cimmerians in Ionia, 175
 Cleopatra, 32
 Cnidus, inscription, 267
 Commerce, Greek, 161 ff.
 Copanis, village, 31
 Corbridge, silver dish from, 66 ff.
 Corcyra, inscriptions, 265
 Corinth, commerce, 165

Crete, inscriptions, 267
 Cuneiform tablets, dating formulae, 33
 Cyclades, inscriptions, 266
 Cycladic League, 184; pottery, 198
 Cyprus, inscriptions, 269

D

DARGENES, 32
 Dating formulae, Parthian, 33
 Delos, inscriptions, 266; Ionian festival, 175
 Delphi, inscriptions, 263; Judgment of Paris, 69
 Denes, 32
 Denobazus, 32
 Diadumenos of Polycleitos, 255
 Dish, silver, from Tyne, 66 ff.
 Dolon, vase fragments, 123
 Dresden, hydria of Euthymides at, 193
 Durer, Canon, 228

E

EDINBURGH, kylix at, 129
 Edonians, 6
 Egypt, flutes from, 13
 Egyptian sculpture, 225
 Eleusinian Mysteries, 5
 Ephesus, silver work of, 75
 Epic Cycle, 86
 Epidaurus, inscriptions, 263
 Epidromos, name on vase, 117
 Epirus, inscriptions, 265
 Erothemis, name on vase, 109
 Esquiline Venus, 256
 Euagon of Lampsacus, 167
 Euboea, inscriptions, 265; prehistoric pottery, 205
 Eubulos, banker, of Assos, 167
 Euphronios, vases of, 107 ff.
 Euripides, *Rhesus*, 4
 Eurystheus kylix, 109, 119
 Euthymides, Bazzichelli psykter, 189 ff.
 Exsuperius, 66

F

FLAXMAN, on canon, 229
 Flutes, 12 ff.
 France, Greek inscriptions, 269
 Frankfurt, Athena, 236

G

GAACES, 32
 Gathaces, 31
 Geography, 164; of Hesiod, 88
 Gerices, 32
 Geryon kylix, 111
 Glaukon, name on vases, 109
 Globe, symbol, 70
 Gortyn, inscriptions, 266
 Gotarzes, 36
 Gotha, kylix, 107
 Guild of purple-sellers at Thyatira, 170

H

HALICARNASSUS, flutes from, 13
 Hector, Ionian king, 175
 Hera, 68
 Herakles kylix, New York, 123
 Hermias, banker, of Assos, 168
 Hesiod, date of, 85 ff.
 Hissarlik, pottery of, 203
 Hoiran, tomb at, 216
 Hystoboges, 32

I

ILIUPERSIS, vase fragments, 113
 Inscriptions, Lycian, 100 ff.; Greek, 260 ff.; alliance of Erythrai and Hermias, 168; arbitration, Melia, 174
 Iodabochthes, 32
 Ionia, inscriptions, 268
 Ionian Confederacy, 173 ff.
 Ionic dialect, 260
 Italy, Greek inscriptions, 269

J

JUDGMENT of Paris, 68

K

KALKMANN, measurements, 233
 Kurdistan, parchments from, 23

L

LEAGROS, name on vases, 109, 119, 193
 Leonardo da Vinci, canon, 226
 Lerus, inscription, 267
 Lesbos, inscriptions, 267
 Lianokladi, prehistoric pottery from, 198
 Liverpool, flutes, 21
 Ludovisi Throne, 111
 Lycia, inscriptions, 100, 268; sepulchral reliefs, 216
 Lydia, inscriptions, 268
 Lygdamis, inscription, 175
 Lykos, name on vase, 109, 132

M

MACEDONIA, inscriptions, 265
 Maiphorres, 31
 Manuscript, Byzantine, 76 ff.
 Media, Hellenism in, 60
 Megara, inscriptions, 263
 Meiridates, 32
 Melfi, sarcophagus, 72
 Melia, inscription, 174
 Melos, Aphrodite, 236; inscriptions, 266
 Mengers, Canon, 229, 250
 Merehi, tomb, 223

Meroë, flutes from, 12 ff.
 Minyan ware, 196 ff.
 Mirabandaces, 32
 Miradates, 32
 Monogram, Christian, 66
 Munich, Attic vases at, 109, 192
 Mycale, Ionian festival, 175
 Mycenae, prehistoric pottery from, 202

N

NAGORASSUS, town, 103
 Naples, flutes at, 13
 Nauplia, prehistoric pottery at, 198
 Naxos, inscriptions, 266
 Nereid Monument, 208 ff.
 New York, Herakles kylix at, 123
 Nisyros, inscription, 267

O

OCHOBAGES, 32
 Oipates, 31
 Olennieire, 32
 Olympiodorus, name on vases, 193
 Onesimos, vases of, 129 ff.
 Orcadates, 32
 Orchomenos, prehistoric pottery from, 198
 Orodes, 36
 Orpheus, vase fragments, 137
 Orphism, 5
 Oxford, metrological relief, 255

P

PAMPHYLIA, inscriptions, 268
 Panaitios, name on vases, 109, 119
 Parchment manuscripts, 24; from Kurdistan, 22 ff.
 Paris, vases, 109, 193 ff.
 Parthian period parchments, 22 ff.
 Peleus and Thetis, vase fragments, 112
 Perugia, kylix, 107 ff., 128
 Petrograd, Hetaira psykter, 110, 190
 Phayllos, name on vase, 192
 Philadelphia, cuneiform tablet, 40
 Philliades, name on vase, 115
 Phocis, prehistoric pottery from, 196 ff.
 Phraates, 32
 Phrygia, inscriptions, 268
 Pisidia, inscriptions, 268
 Pompeii, flutes from, 13
 Poseidon, cult at Mycale, 177
 Pronomus, flute of, 13
 Pythagoras, coin-type, 70

R

RHESOS, of Thrace, 1 ff.
 Rhitsona, skyphos from, 134
 Rhodes, inscriptions, 267
 Risley, silver dish from, 66
 Rome, Capitol, flutes, 18

H.S. — VOL. XXXV.

S

SALEN, 50
 Samos, metrological relief from, 255
 Sarcophagi, Late Roman, 71; Sidon, 223
 Sardis, inscriptions, 268
 Sculpture, canons, 225 ff.
 Siace, 31
 Sicily, inscribed silver plate, 270
 Sidamara sarcophagus, 71
 Sidon sarcophagi, 223
 Silver dish from Tyne, 66 ff.
 Sinatruces, 40
 Smikros, vase-painter, 115
 Sobenes, 31
 Sosias, Patroklos kylix, 112
 Spain, Greek inscriptions, 269
 Strabo, 171 f.
 Strymon, colonies, 6
 Sycynema, 32
 Syria, Greek inscriptions, 270

T

TAXATION, Byzantine treatise, 76 ff.
 Tenos, inscription, 266
 Thales, Ionian politics, 179
 Thera, inscriptions, 266
 Theseus, on vase of Euthymides, 192; kylix, 121
 Thessaly, inscriptions, 264; prehistoric pottery, 200
 Thrace, 1 ff.: inscriptions, 270
 Timotheus, *vóμος* of, 182
 Tiryns, prehistoric pottery from, 198
 Troilos kylix, Perugia, 107, 128
 Trojan pottery, 203
 Trysa, Heroon, 211
 Turin, Bazzichelli psykter, 189
 Tyberissus, town, 103
 Tynnissus, city, 102
 Tyne, silver dish from, 66 ff.

V

VASES, Attic, 107 ff., 189 ff.; Graeco-Italian, 69; Greek prehistoric, 196 ff.
 Venice, Marciana MS, Byzantine, 76 ff.
 Vienna, vase at, 69
 Vineyard, contract, 31
 Vitruvius, canon, 226

W

WÜRZBURG, vase fragment, 125

X

XANTHOS, Nereid Monument, 208 ff.; stele, 102 f.
 Xenon, name on vase, 115

U

II.—GREEK INDEX

ἀγορανόμος, 49
ἀκρόδρνα, 53
ἄκυρος, 54
Ἀλεξάνδρεια, festival, 184
ἀναλογία, 226
ἀνθρωποδαίμων, 5
Ἀστάρχος, 188

βασιλεῖς, in Boeotia, 90
βόμβυξ, 15

διφθέραι, 24

ἔμβαθρον, 58
εὖγε ναίχι, 193
εὐρυθμία, 226

πλαγίαιλος, 12 ff.

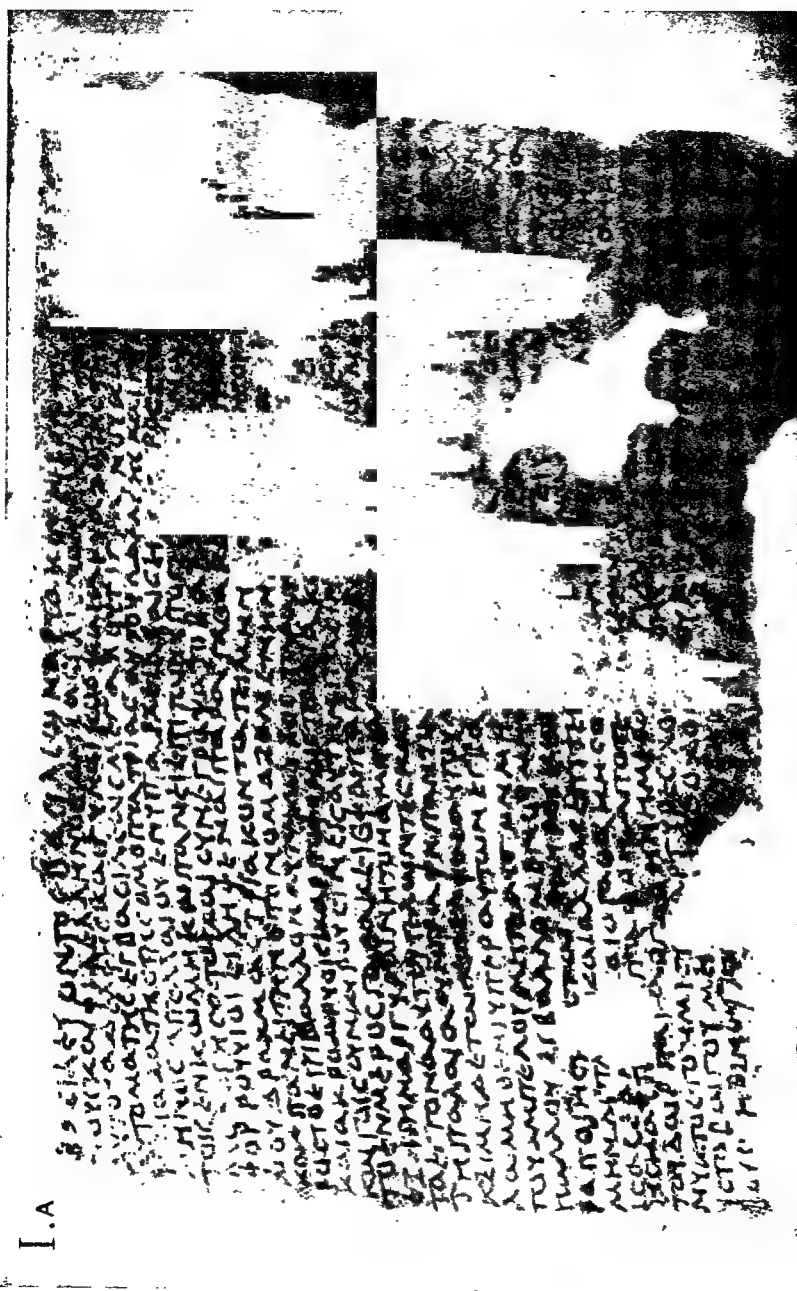
συγγραφή ἑξαμήρτυρος, 49
συγγραφοφύλαξ, 48
συμμετρία, 226

ψειλάφυτον, 59

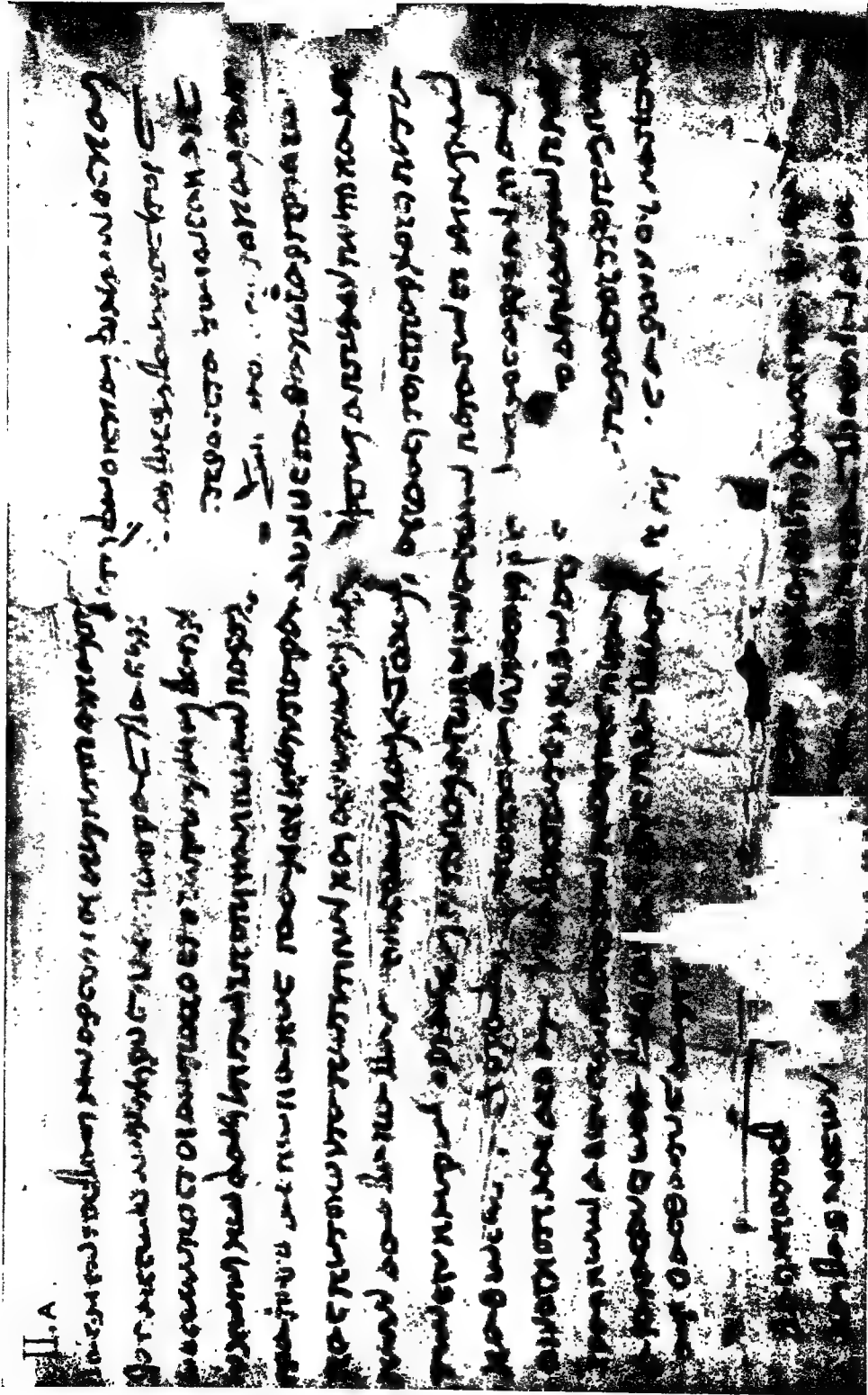
III.—BOOKS NOTICED.

- Bates (O.), *The Eastern Libyans*, 158
- Cook (A. B.), *Zeus*, I., 149
- Davis (Gladys M. N.), *The Asiatic Dionysus*, 284
- Dussaud (R.), *Les Civilisations préhelléniques dans le bassin de la Mer Égée*, 155
- Elter (A.), *Ein athenisches Gesetz über die eleusinische Apurche*, 154
- Evans (A.), *The Tomb of the Double Axes and Associated Group, and Pillar Rooms and Ritual Vessels of the 'Little Palace' at Knossos*, 271
- Frazer (J.), *The Golden Bough*, Ed. 3, 281
- Gardner (E. A.), *A Handbook of Greek Sculpture*, 278
- Gardner (P.), *The Principles of Greek Art*, 148
- Hadaczek (C.), *Les Monuments archéologiques de la Galicie*, I., 153
- Hogarth (D. G.), *The Ancient East*, 277
- Hoskier (H. C.), *Codex B and its Allies*, 275
- Koldewey (R.), *The Excavations at Babylon*, 155
- Mélanges Holleaux*, 152
- Minns (E. H.), *Scythians and Greeks*, 140
- Myres (J. L.), *Handbook of the Cesnola Collection of Antiquities from Cyprus*, 272
- Parkyn (E. A.), *An Introduction to the Study of Prehistoric Art*, 281
- Quiggin (E. C.) [ed.], *Essays and Studies presented to William Ridgway on his Sixtieth Birthday*, 151
- Reinach (A.), *Catalogue des Antiquités égyptiennes recueillies dans les fouilles de Koptos, 1910-11* (Musée Guimet de Lyon), 157
- Richter (Gisela M. A.), *The Metropolitan Museum of Art, New York, Greek, Etruscan and Roman Bronzes*, 274
- Rostóvtsev (M. I.), *Antichnaja Dekorativnaja Zhíropis' na jýgě Rossii*, 143
- Sartiaux (F.), *Les Sculptures et la Restauration du Temple d'Assos en Troade*, 274
- Sykes (P. M.), *A History of Persia*, 277
- Wace (A. J. B.) and Thompson (M. S.), *The Nomads of the Balkans*, 146
- Walters (H. B.), *Catalogue of the Greek and Roman Lamps in the British Museum*, 280; *Select Bronzes, Greek, Roman and Etruscan, in the British Museum*, 275
- Weber (F. Parkes), *Aspects of Death in Art and Epigram*, 152
- Xanthoudides (S. A.), *Βιζάντιου Κορνάρου Ἐρωτόκριτος*, 154
- Ziebarth (E.), *Aus dem griechischen Schulwesen*, 158
- Zimmern (A. E.), *The Greek Commonwealth*, 280

PRINTED IN GREAT BRITAIN BY
RICHARD CLAY AND SONS, LIMITED,
BRUNSWICK STREET, STAMFORD STREET, S.E.,
AND BUNGAY, SUFFOLK.



PARCHMENT I. FROM AVROMAN, DATED A.SEL. 225 - B.C. 88.



PARCHMENT II. FROM AVROMAN, DATED A.S.E. 281 = B.C. 22/21.



PARCHMENT III. FROM AVROMAN, FOUND WITH THE GREEK DEEDS.

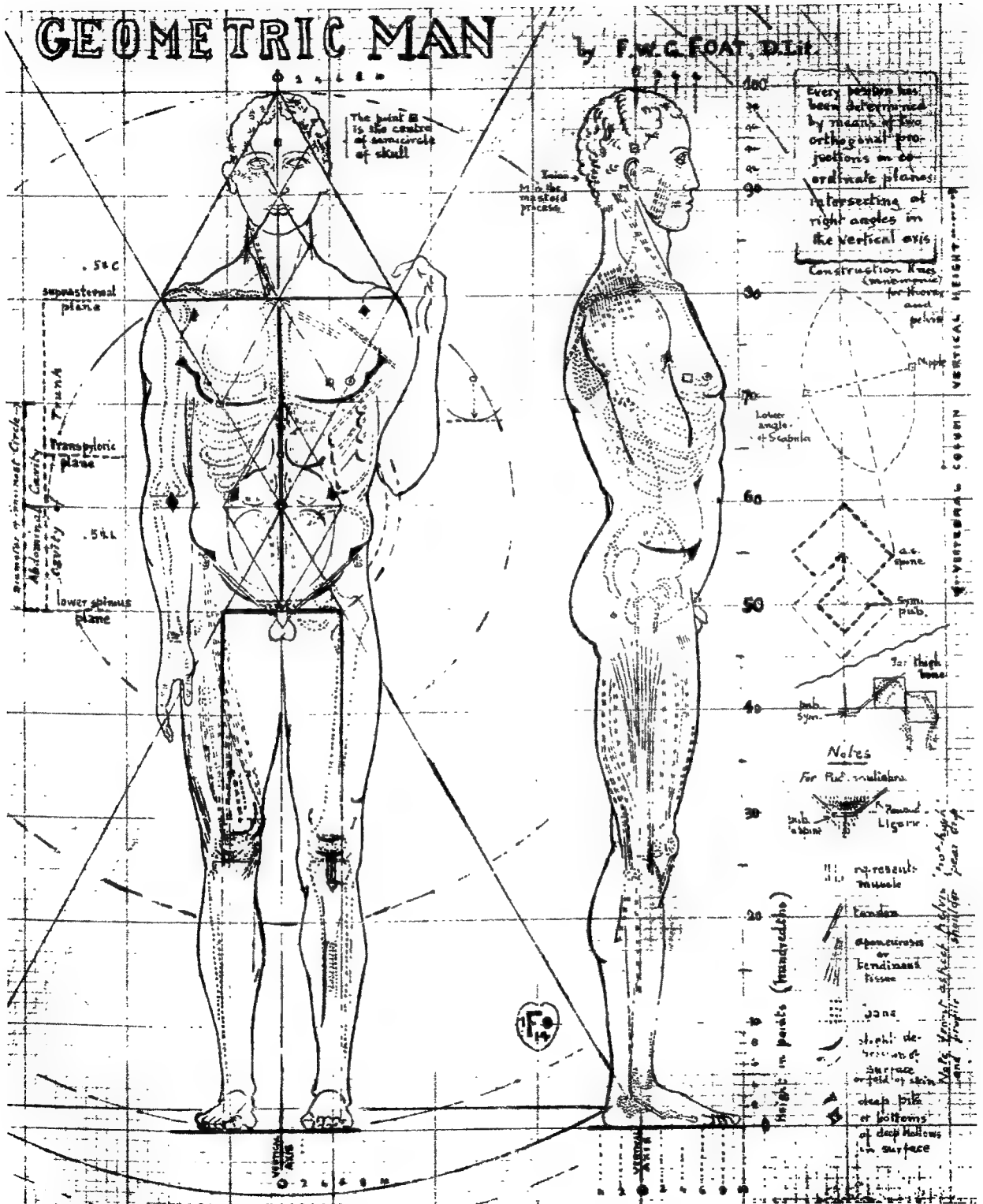


KYLIX SIGNED BY EUPHRONIOS

LOUVRE.

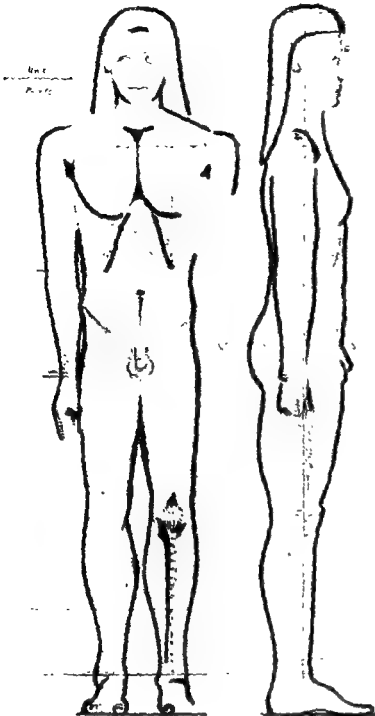


PSYKTER SIGNED BY EUTHYIMIDES (A)



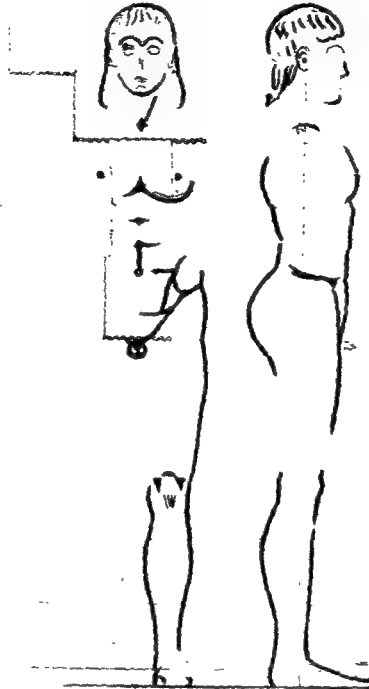
SCHEME OF GEOMETRIC MAN

ARCELOUS APOLLONIOS
Ht 200mm P 200mm
cast at Birmingham

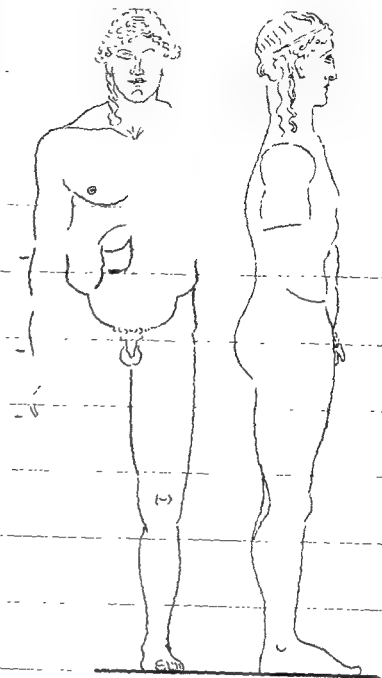


ROMBINO BRONZE
Ht 162mm P 110mm

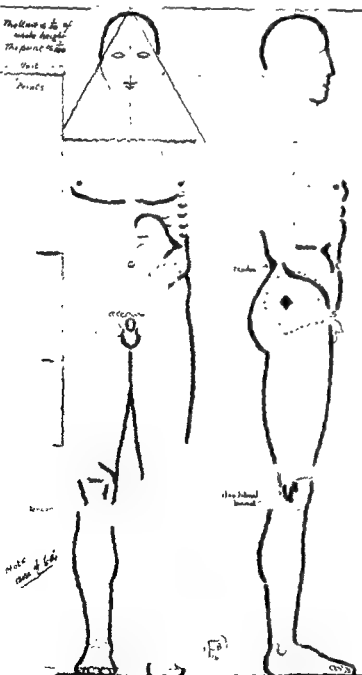
2^d LOUVRE
cast at Birmingham



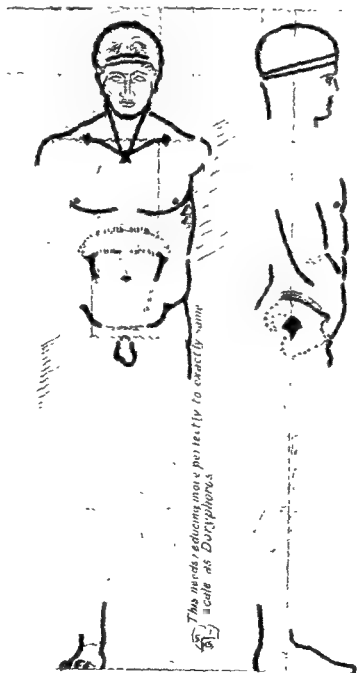
ARCELOUS OF THE TERME (Cassel) Rome-Oxford
Ht 230mm P 200mm cast Ashmolean
Ashm. 158
Mid 5th B.C.



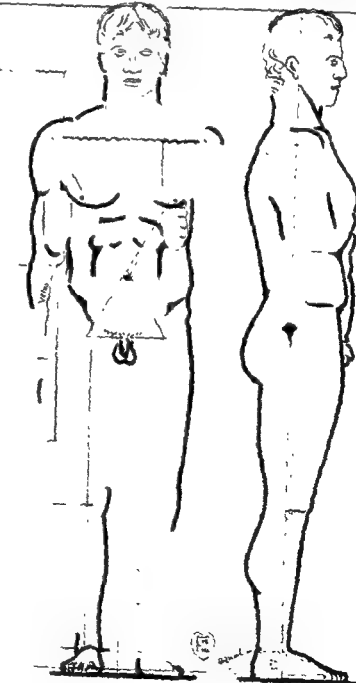
DIADUMENOS VAISON
P 20mm Ht 200mm



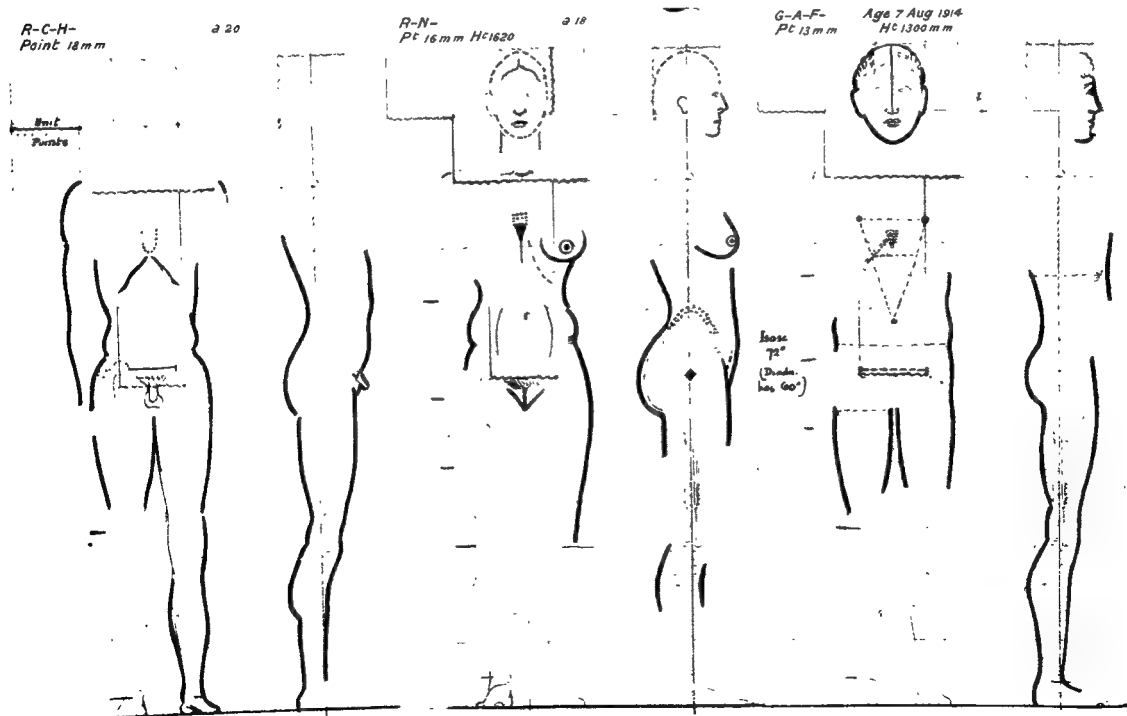
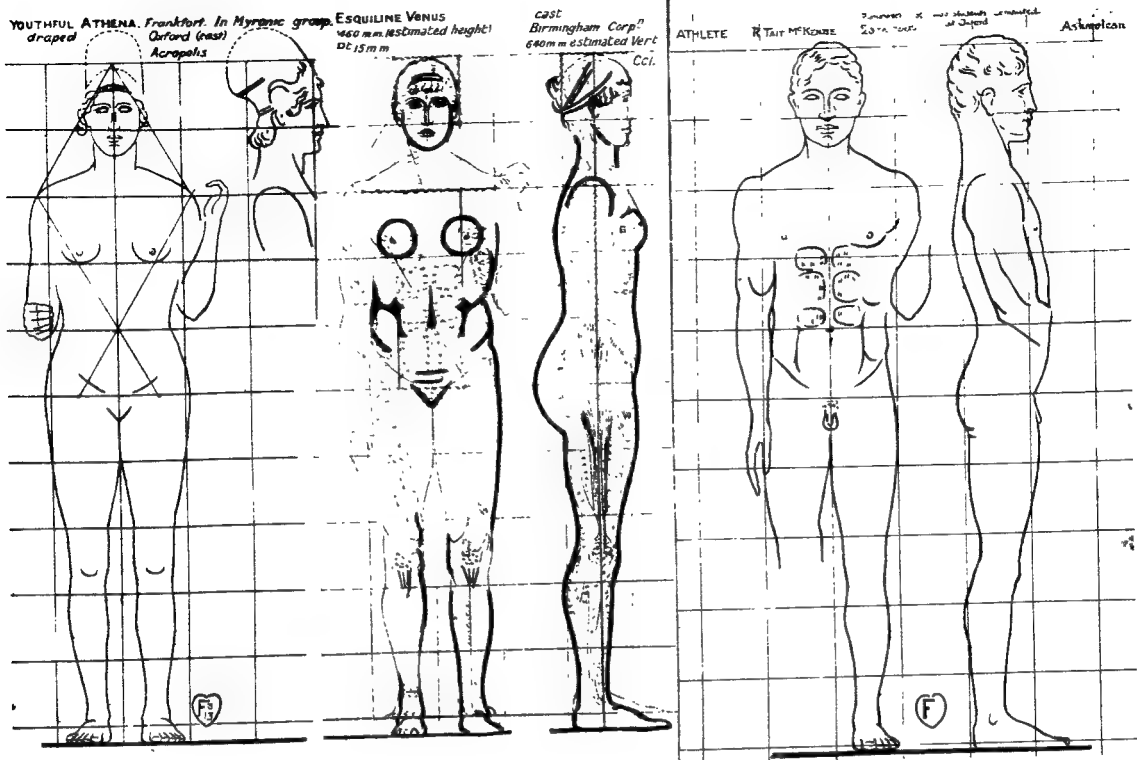
DIADUMENOS DELOS
Ht 1875mm P 200mm



DERYPHOROS
P 20mm Ht 200mm
Brit. M. cast. Orig. at Naples M.
Græco-Rom. 1st A.D.







MEASUREMENTS OF STATUES AND LIVING FIGURES.

1

REV. C.

"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY

GOVT. OF INDIA
Department of Archaeology
NEW DELHI.

Please help us to keep the book
clean and moving.

S. B. 140. N. DELHI.